

## Lineas celulares disponibles

<b>Aedes albopictus</b> .....	5
<b>AN3CA</b> .....	5
<b>AR42J</b> .....	6
<b>A-10</b> .....	9
<b>A10-85</b> .....	10
<b>A2780</b> .....	11
<b>A2780cis</b> .....	12
<b>A 375</b> .....	14
<b>A-427</b> .....	16
<b>A-549</b> .....	17
<b>B16F10</b> .....	19
<b>BB7.1</b> .....	21
<b>BBM.1</b> .....	22
<b>BGM</b> .....	23
<b>BT-474</b> .....	24
<b>BT-474 CLONE 5</b> .....	26
<b>BW5147.G.1.4</b> .....	27
<b>BxPC-3</b> .....	29
<b>CACO-2</b> .....	30
<b>CHO</b> .....	31
<b>CAL-27</b> .....	31
<b>CCD-13Lu</b> .....	33
<b>CCD-18Co</b> .....	34
<b>CCD-25Lu</b> .....	35
<b>CCD841CoN</b> .....	37
<b>CCD-1064Sk</b> .....	38
<b>CHSE-214</b> .....	39
<b>CMT-93</b> .....	40
<b>CPAE</b> .....	41
<b>CT26.WT</b> .....	41
<b>C2C12</b> .....	43
<b>C3A (HepG2/C3A)</b> .....	44
<b>DAOY</b> .....	46
<b>DH82</b> .....	48
<b>DLD-1</b> .....	49
<b>DOK</b> .....	50

D283Med .....	51
D341Med .....	52
<b>Ehrlich-Lette Ascites strain E</b> .....	54
EL4 .....	55
FaDu .....	56
<b>G-292 CLON A141B1</b> .....	58
G-361 .....	59
HCT 116 .....	60
HCT-8 .....	61
HCT 116 .....	63
HEL92.1.7 .....	64
HeLa229 .....	65
HeLa .....	66
HeLa Ohio .....	67
Hep2 (HeLa derivative) .....	67
Hep 3B .....	68
Hep2 (HeLa derivative) .....	69
Hepa-1c1c7 .....	70
HEPG2 .....	71
HL60 .....	72
HS-Sultan .....	73
HT .....	74
HT29 .....	76
HUV-EC-C .....	76
H4 .....	79
H9c2(2-1) .....	81
H-69 .....	83
IEC-6 .....	85
IEC 18 .....	86
J.RT3-T3.5 .....	86
J774.2 .....	88
JEG-3 .....	88
Jurkat E6.1 .....	89
KB (HeLa derivative) .....	90
L-132 .....	92
L243 .....	93
L6.C10 .....	94
L929 .....	95
LL/2(LLc1) .....	96

LNCap clone FGC .....	96
LTPA .....	97
LUDLU-1 .....	99
MC3T3-E1 .....	100
MCF7 .....	101
MCF 10A .....	102
MDA-MB-231 .....	103
MDA-MB-435S .....	106
MDA-MB-468 .....	108
MDCK .....	111
MG-63 .....	113
MH-S .....	114
MIA-Pa-Ca-2 .....	115
MOLT-3 .....	116
MOLT-4 .....	118
NCI-H460 .....	119
NCI-H520 .....	121
NCI-H727 .....	123
NCI-H820 .....	125
NCI-H1650 .....	127
NCI-H1975 .....	129
NEURO-2A .....	130
NL20 .....	131
NL20-TA .....	133
OE33 .....	134
PANC-1 .....	136
PC-3 .....	137
PC12 .....	138
PLC/PRF/5 .....	140
RAMOS .....	141
RAW 264.7 .....	142
RAW 264 .....	143
RBL-2H3 .....	144
RKO .....	146
RPMI2650 .....	148
RT4 .....	150
Saos-2 .....	152
SCC4 .....	153
SCC-9 .....	154

SF9	155
SH-SY5Y	156
SKBR-3	157
SK-MEL-31	159
SK-N-SH	161
SP2/0-Ag14	162
SR	163
STC-1	164
SU-DHL-1	166
SU-DHL-5	167
SU-DHL-6	168
SUP-B15	170
SW480	171
SW 620	172
SW837	173
T1-73	174
T-24	175
T47D	177
T84	177
THP 1	179
tsDC	180
TT	181
U-87 MG	183
U937	183
UBWB1.289	184
UWB1.289+BRCA1	186
Vero	188
VERO C1008, VERO E6	189
WEHI-231	190
WI 38VA13 subline 2RA	191
WRL-68	192
3T3 L1	193
3T3 L1-MBX	195
22Rv1	196
293, HEK 293	197
293T	198
293T/17	199
55-6	201

## **Aedes albopictus**

**REFERENCIA N°: ECACC N°: 90100401(lote 1436) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Larva de mosquito

**MORFOLOGÍA:** Epitelial

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2 mM GLUTAMINA + 1% de aminoácidos no esenciales + 1mM Piruvato sódico + 20% Suero bovino fetal.

**NUMERO DE PASE:** 90

**CARIOTIPO:** 2n=6

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 28°C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** Curr Sci. 1967; 36:506. Curr Tropics Microbiol. Immunol. 1971; 55:127

**COMENTARIOS:** La ATCC la denomina CCL 126. Deriva de un pool de larvas de Aedes albopictus. Las células son susceptibles a virus de mosquitos. Se emplean para estudios de virus

## **AN3CA**

**REFERENCIA N°: ATCC N°: HTB-111 (lote No62959340) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** uterus; endometrium, adenocarcinoma

**MORFOLOGÍA** epitelial

**MEDIO DE CULTIVO:** MEM + 2mM Glutamine + 1% NEAA +10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

## **CARIOTIPO:**

### **DNA PROFILE: STR-PCR Data:**

Amelogenin: X  
CSF1PO: 13\*  
D13S317: 12,14  
D16S539: 10,14  
D5S818: 11,14  
D7S820: 7\*,10,7.1  
THO1: 10,9.3\*  
TPOX: 8,10  
vWA: 14,20

\*Note: This cell line has historically exhibited instability at CSF1PO 13, D7S820 7, and THO1 9.3

### **ISOENZIMES:**

AK-1, 1-2  
ES-D, 1  
G6PD, B  
GLO-I, 2  
PGM1, 1  
PGM3, 1-2

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1 Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** CJ Dawe

**REFERENCIAS:** Dawe CJ, et al. Growth in continuous culture, and in hamsters, of cells from a neoplasma associated with Acanthosis nigricans. J. Natl. Cancer Inst. 33: 441-456, 1964. PubMed: [14207855](#)

Goodfellow M, et al. One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. J. Natl. Cancer Inst. 59: 221-226, 1977. PubMed: [77210034](#)

Hendricks DT, et al. FHIT gene expression in human ovarian, endometrial, and cervical cancer cell lines. Cancer Res. 57: 2112-2115, 1997. PubMed: [9187105](#)

**COMENTARIOS:** The cells produce undifferentiated malignant tumors. at low frequency (22%)

C. J. Dawe and associates derived this cell line from a metastatic lesion in the lymph node of a patient with endometrial carcinoma alerted to the condition by onset of the malignant disorder acanthosis nigricans

**REFERENCIA N°: ATCC N°:** CRL-1492 (lote No 58231636) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Rat exocrine pancreatic tumour

**MORFOLOGÍA** Pancreas cells; Semi-adherent aggregates

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated F-12K Medium, Catalog No. 30-2004. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 20% o RPMI 1640 + 2mM Glutamine + 20% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:** 23

**CARIOTIPO:** Not specified

**DNA PROFILE:** STR-PCR Data:

**RECEPTOR EXPRESION:** insulin, expressed  
glucocorticoid, expressed

**CELLULAR PRODUCTS:** amylase and other exocrine enzymes

**PROCEDIMIENTO DE SUBCULTIVO:** Cells grow in hollow spheroid colonies that can attach loosely. Maintain cultures between 5000-20000 cells/cm<sup>2</sup>; 5% CO<sub>2</sub>; 37°C. Cell viability may be poor on resuscitation from frozen (approx 50%) and growth can be slow. Cells may take up to 7 days to achieve 70% confluence. Resuscitate using 20% FBS, seeding at 10000 cells/cm<sup>2</sup> and media change after 48 hours. Adherent cells should be removed using 0.05% Trypsin/EDTA. N.B. High cell viability cannot be expected during culture.

**NIVEL DE BIOSEGURIDAD:** 1. Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** NW Jessop

**REFERENCIAS:** Jessop NW, Hay RJ. Characteristics of two rat pancreatic exocrine cell lines derived from transplantable tumors. In Vitro 16: 212, 1980.

Longnecker DS, et al. Transplantation of azaserine-induced carcinomas of pancreas in rats. Cancer Lett. 7: 197-202, 1979. PubMed: [509403](#)

Cockell M, et al. Identification of a cell-specific DNA-binding activity that interacts with a transcriptional activator of genes expressed in the acinar pancreas. Mol. Cell. Biol. 9: 2464-2476, 1989. PubMed: [2788241](#)

Roux E, et al. The cell-specific transcription factor PTF1 contains two different subunits that interact with the DNA. *Genes Dev.* 3: 1613-1624, 1989. PubMed: [2612907](#)

Seva C, et al. Lorglumide and loxiglumide inhibit gastrin-stimulated DNA synthesis in a rat tumoral acinar pancreatic cell line (AR42J). *Cancer Res.* 50: 5829-5833, 1990. PubMed: [2393852](#)

Rajasekaran AK, et al. Structural reorganization of the rough endoplasmic reticulum without size expansion accounts for dexamethasone-induced secretory activity in AR42J cells. *J. Cell Sci.* 105: 333-345, 1993. PubMed: [7691838](#)

Longnecker DS, et al. Effect of age on nodule induction by azaserine and DNA synthesis in rat pancreas. *J. Natl. Cancer Inst.* 58: 1769-1775, 1977. PubMed: [864754](#)

Huang Y, Hui DY. Cholesterol esterase biosynthesis in rat pancreatic AR42J cells. Post-transcriptional activation by gastric hormones. *J. Biol. Chem.* 266: 6720-6725, 1991. PubMed: [2016288](#)

Menniti FS, et al. Turnover of inositol polyphosphate pyrophosphates in pancreatoma cells. *J. Biol. Chem.* 268: 3850-3856, 1993. PubMed: [8382679](#)

Logsdon CD, et al. Glucocorticoids increase amylase mRNA levels, secretory organelles, and secretion in pancreatic acinar AR42J cells. *J. Cell Biol.* 100: 1200-1208, 1985. PubMed: [2579957](#)

Zhao H, et al. Regulation of intracellular Ca<sup>2+</sup> oscillation in AR42J cells. *J. Biol. Chem.* 265: 20856-20862, 1990. PubMed: [1701171](#)

Zhao H, Muallem S. Inhibition of inositol 1,4,5-trisphosphate-mediated Ca<sup>2+</sup> release by Ca<sup>2+</sup> in cells from peripheral tissues. *J. Biol. Chem.* 265: 21419-21422, 1990. PubMed: [2174872](#)

Ihara H, Nakanishi S. Selective inhibition of expression of the substance P receptor mRNA in pancreatic acinar AR42J cells by glucocorticoids. *J. Biol. Chem.* 265: 22441-22445, 1990. PubMed: [1702421](#)

Adell T, et al. Role of the basic helix-loop-helix transcription factor p48 in the differentiation phenotype of exocrine pancreas cancer cells. *Cell Growth Differ.* 11: 137-147, 2000. PubMed: [10768861](#)

Seva C, et al. Growth-promoting effects of glycine-extended progastrin. *Science* 265: 410-412, 1994. PubMed: [8023165](#)

Negre F, et al. Autocrine stimulation of AR4-2J rat pancreatic tumor cell growth by glycine-extended gastrin. *Int. J. Cancer* 66: 653-658, 1996. PubMed: [8647628](#)

Bertrand V, et al. Inhibition of gastrin-induced proliferation of AR4-2J cells by calcium channel antagonists. *Int. J. Cancer* 56: 427-432, 1994. PubMed: [7508895](#)

Mashima H, et al. Betacellulin and activin A coordinately convert amylase-secreting pancreatic AR42J cells into insulin-secreting cells. *J. Clin. Invest.* 97: 1647-1654, 1996. PubMed: [8601630](#)

Palgi J, et al. Transcription factor expression and hormone production in pancreatic AR42J cells. *Mol. Cell. Endocrinol.* 165: 41-49, 2000. PubMed: [10940482](#)

Mashima H, et al. Formation of insulin-producing cells from pancreatic acinar AR42J cells by hepatocyte growth factor. *Endocrinology* 137: 3969-3976, 1993. PubMed: [8756573](#)

Silver K, Yao F. ARIP cells as a model for pancreatic beta cell growth and development. *Pancreas* 22: 141-147, 2001. PubMed: [11249068](#)

**COMENTARIOS:** Derived from a transplantable tumour of a rat exocrine pancreas. The line is tumourigenic in nude mice, and shows significant secretion of amylase and other exocrine enzymes. Secretory activity is inducible by glucocorticoid stimulation, and is accompanied by extensive re-organization of the endoplasmic reticulum. Secretory activity is inducible by glucocorticoid stimulation, and is accompanied by extensive re-organization of the endoplasmic reticulum.

## A-10

**REFERENCIA Nº: ATCC Nº:** CRL-1476 (lote CB No) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** aorta, thoracic/medial layer, *Rattus norvegicus*, rat, strain BDIX. embryo

**MORFOLOGÍA** myoblast , adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, Catalog No. 30-2002. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10% .

NUMERO DE PASE:

**GENES EXPRESSED:** myokinase; creatine phosphokinase; myosin

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

### PROCEDIMIENTO DE SUBCULTIVO:

Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).

Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:6 is recommended

**Medium Renewal:** Every 3 to 4 days

**Freeze medium:** Complete growth medium 95%; DMSO, 5%

**Storage temperature:** liquid nitrogen vapor phase

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** W Carlisle

**REFERENCIAS:** Kimes BW, Brandt BL. Characterization of two putative smooth muscle cell lines from rat thoracic aorta. *Exp. Cell Res.* 98: 349-366, 1976. PubMed: [943301](#)

Zhang X, et al. Microfilament depletion and circumvention of multiple drug resistance by sphinxolides. *Cancer Res.* 57: 3751-3758, 1997. PubMed: [9288783](#)

Gordon EM, et al. Factor XII-induced mitogenesis is mediated via a distinct signal transduction pathway that activates a mitogen-activated protein kinase. *Proc. Natl. Acad. Sci. USA* 93: 2174-2179, 1996. PubMed: [8700904](#)

Zhang X, Smith CD. Microtubule effects of welwistatin, a cyanobacterial indolinone that circumvents multiple drug resistance. *Mol. Pharmacol.* 49: 288-294, 1996. PubMed: [8632761](#)

**COMENTARIOS:** The clonal cell line A10 was derived by B. Kimes and B. Brandt from the thoracic aorta of DBIX embryonic rat.

The clonal cell line A10 possesses many of the properties characteristic of smooth muscle cells. The cells produce spontaneous action potentials at the stationary phase of the growth cycle and exhibit an increase in activity of the enzymes myokinase and creatine phosphokinase. This cell line is a suitable transfection host.

## **A10-85**

**REFERENCIA Nº: ECACC Nº: 93040117(lote No03J017) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica

surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Rat; Glioma

**MORFOLOGÍA:** Epithelial-like; Adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** Modal no. 42

**ANTIGEN EXPRESSON:**

**GENES EXPRESSED:**

**ISOTYPE:**

**DNA PROFILE: STR-PCR Data:**

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:50 to 1:100 seeding at 5x10,000 to 1x100,000 cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Dr J Roscoe, Department of Histopathology, University College and Middlesex School of Medicine, London

**REFERENCIAS:** Br J Exp Path 1979;60:209

**COMENTARIOS:** The glioma cell line A10-85 is a subclone of A10 cells which originally emerged from the parent line IA2 by reducing the serum concentration from 15% to 10%. This parent line IA2 was derived from a rat brain glioma induced transplacentally by ethylnitroso urea (inbred BDIXrats). A10-85 cells form processes in response to cAMP. GAPDH can be induced by hydrocortisone succinate and good growth was obtained in semi-solid medium. Injection of cells into syngenic animals resulted in the formation of malignant astrocytic tumours after short latent periods.

Experimental tumour models, carcinogenesis studies

**A2780**

**REFERENCIA N°: ECACC N°: 93112519 (lote 13J012) EN LAS PUBLICACIONES CIENTÍFICAS DEBE IR CITADA COMO: A2780 (ECACC 93112519) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja

la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human ovarian carcinoma

**MORFOLOGÍA** Epitelial. Adherente

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 14

**CARIOTIPO:** No especificado

DNA PROFILE: STR-PCR Data:

Amelogenin: X  
CSF1PO: 10,11  
D13S317: 12,13  
D16S539: 11,13  
D5S818: 11,12  
D7S820: 10  
THO1: 6  
TPOX: 8,10  
vWA: 15,16

**PROCEDIMIENTO DE SUBCULTIVO** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at 3-6x10,000cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD: 2** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK).

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Dr J Clarke, AVRI, Pirbright

**REFERENCIAS:** Semin Oncol 1984;11:285; Cancer Res 1987;47:414

Barretina J, et al., 2012 The Cancer Cell Line Encyclopedia enables predictive modelling of anticancer drug sensitivity. Nature. 483(7391):603-7. [PMID: 22460905](#).

**COMENTARIOS:** The A2780 human ovarian cancer cell line was established from tumour tissue from an untreated patient. Cells grow as a monolayer and in suspension in spinner cultures. A2780 is the parent line to the cisplatin resistant cell line A2780 cis (ECACC catalogue no. 93112517) and the adriamycin resistant cell line A2780 ADR (ECACC catalogue no. 93112520).

**A2780cis**

**REFERENCIA N°: ECACC N°: 93112517 (lote CB No 13J011) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones

derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human ovarian carcinoma

**MORFOLOGÍA** Epithelial

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + **1µM cisplatinum** + 10% Foetal Bovine Serum (FBS)

**NUMERO DE PASE:** 5

**CARIOTIPO:** Modal no. 46

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 10,11  
D13S317: 13  
D16S539: 11,13  
D5S818: 11  
D7S820: 10  
THO1: 6  
TPOX: 8,10  
vWA: 15,16

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:5 to 1:20 i.e. seeding at 1x1,000 to 1x10,000 cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C. Cells will attach slowly after resuscitation and take up to 7 days to reach confluency. Recommendation: resuscitate cells in media without cisplatin. Add after subculture of attached cells.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

ACDP Guidance: [Biological agents: Managing the risks in laboratories and healthcare premises.](#)

Hyperlinks	to	MSDS	documents:		
Frozen	cell	Material	Safety	Data	Sheet
Growing	cell	Material	Safety	Data	Sheet
<u><a href="#">Nucleic acids derived from cell cultures Material Safety Data Sheet</a></u>					

**DEPOSITOR:** Dr T H Ward, Cell Culture Unit, Patterson Laboratories, Christie Hospital, Manchester

**REFERENCIAS:** Cancer Res 1987;47:414; Cancer Res 1988;48:5713

**COMENTARIOS:** This cisplatin-resistant cell line has been developed by chronic exposure of the parent cisplatin-sensitive A2780 cell line (ECACC catalogue no. 93112519) to increasing concentrations of cisplatin. A2780cis is cross-resistant to melphalan, adriamycin and irradiation. An increased ability to repair DNA damage as well as cytogenetic abnormalities has been observed. In order to retain resistance cisplatin has to be added to the media for every passage. In addition to this matched pair of drug-sensitive/resistant cell lines an adriamycin-resistant cell line, A2780adr (ECACC catalogue no. 93112520), has been isolated from the same parental line A2780

## A 375

**REFERENCIA Nº: ATCC Nº: CRL-1619** (lote No70019044) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, Skin, Malignant Melanoman,

**MORFOLOGÍA:** Adherent, epithelial

**Tumorigenic:** Yes; Yes, in immunosuppressed mice

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%. 37°C

**NUMERO DE PASE:**

**CARIOTIPO:** It is a hypotriploid with a modal number of 62 chromosomes. There are 9 marker chromosomes that are commonly found in each cell, and normal N2, N6, and N22 are present at one copy per cell.

**Mycoplasma contamination:** Not detected

### STR profiling

Amelogenin: X

CSF1PO: 11,12

D13S317: 11,14

D16S539: 9

D5S818: 12

D7S820: 9

THO1: 8

TPOX: 8,10

vWA: 16,17

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes. Corning® T-75 flasks (catalog #430641) are recommended for subculturing this product.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:8 is recommended

**Medium Renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial

exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

**DEPOSITOR:** DJ Giard

**REFERENCIAS:** Consultar web ATCC

**COMENTARIOS:** This cell line is a suitable transfection host. This cell line is also the ideal control for NRAS mutant-A375 isogenic cell line (ATCC® CRL-1619IG-2™).  
Female 54 years old.

**APPLICATIONS:**

3D cell culture

High-throughput screening

Toxicology

Immuno-oncology

**A-427**

**REFERENCIA N°: ATCC N°:** HTB-53(lote No 3531933) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, pulmón, carcinoma

**MORFOLOGÍA:** epitelial, adherente

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** at passage 60, hypotriploid to hypertriploid with abnormalities including dicentrics, minutes and large subtelocentric marker

**TUMORIGENIC:** Yes, in nude mice; forms an undifferentiated tumor suggestive of adenocarcinoma

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y  
CSF1PO: 10,12  
D13S317: 11,12  
D16S539: 11,13  
D5S818: 12  
D7S820: 8,12  
THO1: 9  
TPOX: 8,11  
vWA: 17

**ISOENZIMES:**

AK-1, 2  
ES-D, 1  
G6PD, B  
GLO-I, 1  
PGM1, 1-2  
PGM3, 1

**PROCEDIMIENTO DE SUBCULTIVO:** Remove medium, and rinse the monolayer with fresh 0.25% trypsin, 0.53 mM EDTA solution. Remove the trypsin, add fresh trypsin and let the culture sit at room temperature (or at 37°C) until the cells detach (about 10 minutes). Add fresh medium, aspirate and dispense into new flasks.

**Interval:** every 6 to 8 days

**Subcultivation Ratio:** 1:2 to 1:6

**Medium Renewal:** Twice per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** DJ Giard

**SPECIAL COLLECTION:** Human Tumor Cell Bank

**REFERENCIAS:** CONSULTAR LA WEB DE LA ATCC.

**COMENTARIOS:** The A-427 line was derived by D.J. Giard, as indicated in the description for ATCC HTB-41.

**A-549**

**REFERENCIA N°: ATCC N°: CCL-185** (lote n° 3624224) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** Carcinoma de pulmón humano

**MORFOLOGÍA:** epitelial adherente

**MEDIO DE CULTIVO:** Ham F12 modificado por Kaighn (F12K) con 2mM de glutamina modificado por la ATCC conteniendo 1.5 g/L de bicarbonato sódico + 10% Suero bovino fetal.

**NUMERO DE PASE:** 78

**CARIOTIPO:** This is a hypotriploid human cell line with the modal chromosome number of 66, occurring in 24% of cells. Cells with 64 (22%), 65, and 67 chromosome counts also occurred at relatively high frequencies; the rate with higher ploidies was low at 0.4%. There were 6 markers present in single copies in all cells. They include der(6)t(1;6) (q11;q27); ?del(6) (p23); del(11) (q21), del(2) (q11), M4 and M5. Most cells had two X and two Y chromosomes. However, one or both Y chromosomes were lost in 40% of 50 cells analyzed. Chromosomes N2 and N6 had single copies per cell; and N12 and N17 usually had 4 copies. Note: Cytogenetic information is based on initial seed stock at ATCC. Cytogenetic instability has been reported in the literature for some cell lines.

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37° C y 5% de CO<sub>2</sub>. Doubling time about 22 hours

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** M Lieber

**REFERENCIAS:** Giard DJ, et al. In vitro cultivation of human tumors: establishment of cell lines derived from a series of solid tumors. J. Natl. Cancer Inst. 51: 1417-1423, 1973.

PubMed: [4357758](#)

Mayr GA, Freimuth P. A single locus on human chromosome 21 directs the expression of a receptor for adenovirus type 2 in mouse A9 cells. J. Virol. 71: 412-418, 1997.

PubMed: [8985365](#)

Goodrum FD, Ornelles DA. The early region 1B 55-kilodalton oncoprotein of adenovirus relieves growth restrictions imposed on viral replication by the cell cycle. J. Virol. 71: 548-561, 1997. PubMed: [8985383](#)

St. Geme JW, et al. Characterization of the genetic locus encoding Haemophilus influenzae type b surface fibrils. J. Bacteriol. 178: 6281-6287, 1996. PubMed: [8892830](#)

Horikami SM, et al. The Sendai virus V protein interacts with the NP protein to regulate viral genome RNA replication. Virology 222: 383-390, 1996. PubMed: [8806522](#)

Huang S, et al. Adenovirus interaction with distinct integrins mediates separate events in cell entry and gene delivery to hematopoietic cells. J. Virol. 70: 4502-4508, 1996.

PubMed: [8676475](#)

Goodrum FD, et al. Adenovirus early region 4 34-kilodalton protein directs the nuclear localization of the early region 1B 55-kilodalton protein in primate cells. J. Virol. 70: 6323-6335, 1996. PubMed: [8709260](#)

Fang R, Aust AE. Induction of ferritin synthesis in human lung epithelial cells treated with crocidolite asbestos. Arch. Biochem. Biophys. 340: 369-375, 1997. PubMed: [9143343](#)

Geiger T, et al. Antitumor activity of a PKC-alpha antisense oligonucleotide in combination with standard chemotherapeutic agents against various human tumors transplanted into nude mice. Anticancer Drug Des. 13: 35-45, 1998. PubMed: [9474241](#)

Evdokiou A, Cowled PA. Tumor-suppressive activity of the growth arrest-specific gene GAS1 in human tumor cell lines. Int. J. Cancer 75: 568-577, 1998. PubMed: [9466658](#)

Giavedoni LD, Yilma T. Construction and characterization of replication-competent simian immunodeficiency virus vectors that express gamma interferon. J. Virol. 70: 2247-2251, 1996. PubMed: [8642649](#)

Bartz SR, et al. Human immunodeficiency virus type 1 cell cycle control: Vpr is cytostatic and mediates G2 accumulation by a mechanism which differs from DNA damage checkpoint control. J. Virol. 70: 2324-2331, 1996. PubMed: [8642659](#)

Garofalo R, et al. Transcriptional activation of the interleukin-8 gene by respiratory syncytial virus infection in alveolar epithelial cells: nuclear translocation of the RelA transcription factor as a mechanism producing airway mucosal inflammation. J. Virol. 70: 8773-8781, 1996. PubMed: [8971006](#)

Jamaluddin M, et al. Inducible translational regulation of the NF-IL6 transcription factor by respiratory syncytial virus infection in pulmonary epithelial cells. J. Virol. 70: 1554-1563, 1996. PubMed: [8627674](#)

Lewis JA, et al. Inhibition of mitochondrial function by interferon. J. Biol. Chem. 271: 13184-13190, 1996. PubMed: [8662694](#)

Lieber M, et al. A continuous tumor-cell line from a human lung carcinoma with properties of type II alveolar epithelial cells. Int. J. Cancer 17: 62-70, 1976. PubMed: [175022](#)

**COMENTARIOS:** This line was initiated in 1972 by D.J. Giard, et al. through explant culture of lung carcinomatous tissue from a 58-year-old Caucasian male. The cells are positive for keratin by immunoperoxidase staining. Studies by M. Lieber, et al. revealed that A549 cells could synthesize lecithin with a high percentage of desaturated fatty acids utilizing the cytidine diphosphocholine pathway.

## **B16F10**

**REFERENCIA N°: ATCC N°: CRL-6322 (lote CB No) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Mus musculus*, mouse, melanoma, C57BL/6J

**MORFOLOGÍA** mixture of spindle-shaped and epithelial-like cells; adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 12

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:**

Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1.- Remove and discard culture medium.

2.- Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.

3.- Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).

Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

4.- Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.

5.- Add appropriate aliquots of the cell suspension to new culture vessels.

6.-Incubate cultures at 37°C.

Subcultivation Ratio: A subcultivation ratio of 1:4 to 1:10 is recommended

Medium Renewal: Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** 1. Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:**

**REFERENCIAS:**

Fidler IJ. Biological behavior of malignant melanoma cells correlated to their survival in vivo. *Cancer Res.* 35: 218-224, 1975. PubMed: [1109790](#)

Fidler IJ, et al. Tumoricidal properties of mouse macrophages activated with mediators from rat lymphocytes stimulated with concanavalin A. *Cancer Res.* 36: 3608-3615, 1976. PubMed: [953987](#)

Fidler IJ, Bucana C. Mechanism of tumor cell resistance to lysis by syngeneic lymphocytes. *Cancer Res.* 37: 3945-3956, 1977. PubMed: [908034](#)

Fidler IJ, Kripke ML. Metastasis results from preexisting variant cells within a malignant tumor. *Science* 197: 893-895, 1977. PubMed: [887927](#)

Fidler IJ. Immune stimulation-inhibition of experimental cancer metastasis.

Cancer Res. 34: 491-498, 1974. PubMed: [4812256](#)

Briles EB, Kornfeld S. Isolation and metastatic properties of detachment variants of B16 melanoma cells. J. Natl. Cancer Inst. 60: 1217-1222, 1978.

PubMed: [418183](#)

Fidler IJ. Selection of successive tumour lines for metastasis. Nat. New Biol. 242: 148-149, 1973. PubMed: [4512654](#)

**COMENTARIOS:** This cell line is a suitable transfection host.

## **BB7.1**

**REFERENCIA N°: ATCC N°: HB-56**(lote No30 206917) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Hybridoma; *Mus musculus* (B cell); *Mus musculus* (myeloma), mouse (B cell); mouse (myeloma)

**MORFOLOGÍA:** lymphoblast; Suspension

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, Catalog No. 30-2001. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:**

**ANTIGEN EXPRESSON:**

**GENES EXPRESSED:**immunoglobulin, monoclonal antibody, against HLA B7

**ISOTYPE:**

IgG1

**DNA PROFILE: STR-PCR Data:**

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by addition or replacement of fresh medium. Start cultures at  $1 \times 10^5$  cells/mL and maintain between  $1 \times 10^5$  and  $1 \times 10^6$  cells/mL.

**Medium Renewal:** Every 1 to 2 days

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** P Parham, Hybridoma Bank (HB)

**REFERENCIAS:** rapani JA, et al. Immunoradiometric assay for the rapid detection of HLA-B27. Immunol. Cell Biol. 66: 215-219, 1988. PubMed: [3155158](#)

Toubert A, et al. Epitope mapping of HLA-B27 and HLA-B7 antigens by using intradomain recombinants. J. Immunol. 141: 2503-2509, 1988. PubMed: [2459214](#)

McCutcheon JA, Lutz CT. Mutagenesis around residue 176 on HLA-B\*0702 characterizes multiple distinct epitopes for anti-HLA antibodies. Hum. Immunol. 35: 125-131, 1992. PubMed: [1283748](#)

McCutcheon JA, et al. HLA-B\*0702 antibody epitopes are affected indirectly by distant antigen residues. Hum. Immunol. 36: 69-75, 1993. PubMed: [7681814](#)

Brodsky FM, et al. Monoclonal antibodies for analysis of the HLA system. Immunol. Rev. 47: 3-61, 1979. PubMed: [9501](#)

**COMENTARIOS:** The antibody appears to react with an epitope coded by the HLA-B\*0702 allele. Tested and found negative for ectromelia virus (mousepox).  
Animals were immunized with papain solubilized HLA B7 antigen.  
Spleen cells were fused with NS-1 myeloma cells.

## **BBM.1**

**REFERENCIA N°: ATCC N°: HB-28** (lote No30 1445576) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Hybridoma: b lymphocyte; *Mus musculus* (B cell); *Mus musculus* (myeloma), mouse (B cell); mouse (myeloma)

**MORFOLOGÍA:** lymphoblast; Suspension

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, Catalog No. 30-2001. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:**

**ANTIGENIC DETERMINANTS:** Microglobulin, beta-2, human

**GENES EXPRESSED:** immunoglobulin, monoclonal antibody, against human beta-2 microglobulin

**ISOTYPE:** IgG2b

**DNA PROFILE: STR-PCR Data:**

**PROCEDIMIENTO DE SUBCULTIVO: Medium Renewal:** Every 2 to 3 days

Cultures can be maintained by addition or replacement of fresh medium. Start cultures at  $2 \times 10^5$  cells/ml and maintain between  $1 \times 10^5$  and  $1 \times 10^6$  cells/ml.

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** P Parham, Hybridoma Bank (HB)

**REFERENCIAS:** Brodsky FM, et al. Characterization of a monoclonal anti-B2-microglobulin antibody and its use in the genetic and biochemical analysis of major histocompatibility antigens. Eur. J. Immunol. 9: 536-545, 1979. PubMed: [91522](#)

Parham P, et al. Arginine 45 is a major part of the antigenic determinant of human beta2-microglobulin recognized by mouse monoclonal antibody BBM.1. J. Biol. Chem. 258: 6179-6186, 1983. PubMed: [6189821](#)

**COMENTARIOS:** Tested and found negative for ectromelia virus (mousepox).

Spleen cells were fused with P3X63Ag8 myeloma cells.

Animals were immunized with MOLT-4 cells ([ATCC CRL-1582](#), a human T cell line).

Spleen cells were fused with P3X63Ag8 myeloma cells.

Tested and found negative for ectromelia virus (mousepox)

**BGM**

**REFERENCIA N°: ECACC N°: 90092601**(lote No CB NO: 99GO13) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan**

las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** Monkey, Kidney

**MORFOLOGÍA:** Epithelial-like, Adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:8 to 1:20 i.e. seeding at 5x1,000 to 2x10,000 cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Dr S Clark, CAMR, Porton Down, Salisbury

**REFERENCIAS:** Health Lab Science 1974;11:275

**COMENTARIOS:** Used for the isolation of water borne viruses e.g. polio 1, 2, 3, Echo 3, 6, 7, 9, 12, 27, Cocksackie A9 + B1, 2, 3 and Reo 1.

**BT-474**

**REFERENCIA N°: ATCC N°: HTB-20 (lote No59758899) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** mammary gland; breast/duct

**MORFOLOGÍA:** Epitelial. adherent, patchy (The cells form adherent patches of epithelial-like cells The patches are compact multilayered colonies that rarely become confluent)

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC Hybri-Care Medium, Catalog No. 46-X. Hybri-Care Medium is supplied as a powder and should be reconstituted in 1 L cell-culture-grade water and supplemented with 1.5 g/L sodium bicarbonate. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE: 92

**CARIOTIPO:** The cell line is aneuploid human female (XO usually), with most chromosome counts in the hypertetraploid range. Several chromosomes (N11, N13, and N22) are absent, and others are clearly under-represented (N9, N14, and N15) with respect to the other normal chromosomes. Chromosome N7 tends towards over-representation in several karyotypes. Some of the missing normal chromosomes are represented by their involvement in the nine stable marker chromosomes: der(14)t(14;?)(q32,?), unknown, iso(13q), der(6)t(6;7)(q21;q21), der(11)t(11;?)(14;?), del(11)(p11), unknown, unknown, der(2)t(2;?)(p21;?). Several of the latter were reported by E. Lasfargues, et al. [Ref▲](#) Lasfargues EY, et al. Isolation of two human tumor epithelial cell lines from solid breast carcinomas. J. Natl. Cancer Inst. 61: 967-978, 1978. [PubMed: 212572](#)

DNA PROFILE: STR-PCR Data:

**STR Profile**    **Amelogenin: X**  
**CSF1PO: 10,11**  
**D13S317: 11**  
**D16S539: 9,11**  
**D5S818: 11,13**  
**D7S820: 9,12**  
**THO1: 7**  
**TPOX: 8**  
**vWA: 15,16**

**Isoenzymes**    **AK-1, 1**  
**ES-D, 1**  
**G6PD, B**  
**GLO-I, 1**  
**Me-2, 0**  
**PGM1, 1**  
**PGM3, 1**

**PROCEDIMIENTO DE SUBCULTIVO:** HTB-20 recovers slowly from cryopreservation. It may take two to four weeks for the cells to reach 70-80% confluence in a T-75 flask after thaw.

Remove medium, and rinse with 0.25% trypsin, 0.53 mM EDTA solution. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks. Corning® T-75 flasks (catalog #430641) are recommended for subculturing this product.

**Subcultivation Ratio:** A subcultivation ratio of 1:2 to 1:3 is recommended

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on [U.S. Public Health Service Guidelines](#), it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**EPOSITOR:** EY Lasfargues

**REFERENCIAS:** Lasfargues EY, et al. Isolation of two human tumor epithelial cell lines from solid breast carcinomas. J. Natl. Cancer Inst. 61: 967-978, 1978. PubMed: [212572](#)

Lasfargues EY, et al. A human breast tumor cell line (BT-474) that supports mouse mammary tumor virus replication. In Vitro 15: 723-729, 1979. PubMed: [94035](#)

Littlewood-Evans AJ, et al. The osteoclast-associated protease cathepsin K is expressed in human breast carcinoma. Cancer Res. 57: 5386-5390, 1997. PubMed: [9393764](#)

The cells form adherent patches of epithelial-like cells The patches are compact multilayered colonies that rarely become confluent

Lasfargues EY, et al. Isolation of two human tumor epithelial cell lines from solid breast carcinomas. J. Natl. Cancer Inst. 61: 967-978, 1978. PubMed: [212572](#)

**COMENTARIOS:** The BT-474 line was isolated by E. Lasfargues and W.G. Coutinho from a solid, invasive ductal carcinoma of the breast of 60 years adult Caucasian female.

### **BT-474 CLONE 5**

REFERENCIA Nº: ATCC Nº: CRL-3247 (lote No70027736) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA. Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

DESCRIPCION CELULAR: Homo sapiens, human, Breast; Duct; Mammary gland

MORFOLOGÍA: epithelial-like; Adherent, patchy

MEDIO DE CULTIVO: The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, ATCC 30-2001. To make the complete growth medium, add the following components to the base medium: fetal bovine serum (ATCC 30-2020) to a final concentration of 10%.

NUMERO DE PASE:

CARIOTIPO:

EXPRESSION MARKERS: Her2, expressed

GENES EXPRESSED:

ISOTYPE:

DNA PROFILE: STR-PCR Data:

MYCOPLASMA CONTAMINATION: Not detected ( by PCR with Venor GeM qEP kit

PROCEDIMIENTO DE SUBCULTIVO:

Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).

Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

Subcultivation:

Start-up: 6.0 x 10<sup>4</sup> to 1.0 x 10<sup>5</sup> viable cells/cm<sup>2</sup>

Subculture: 6.0 x 10<sup>4</sup> to 1.5 x 10<sup>5</sup> viable cells/cm<sup>2</sup>

Medium Renewal: 2 to 3 times per week

NIVEL DE BIOSEGURIDAD: 1. Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.

DEPOSITOR:

REFERENCIAS: Kute T, et al. Development of herceptin resistance in breast cancer cells.

Cytometry A 57(2): 86-93, 2004. PubMed: 14750129

Kute T, et al. Understanding key assay parameters that affect measurements of trastuzumab-mediated ADCC against Her2 positive breast cancer cells. Oncoimmunology 1(6): 810-821, 2012. PubMed: 23162748

COMENTARIOS: BT-474 Clone 5 is an epithelial-like cell line clone that was originally isolated from the mammary gland of a 60-year-old, White female patient with ductal carcinoma. BT-474 (ATCC HTB-20) cells were grown in 10ug/mL Herceptin for several weeks until the resulting cells (clones) were defined as resistant to Herceptin treatment. These resistant cells were grown in standard RPMI with 10% fetal bovine serum for many years under different conditions but the cells enclosed have not been exposed to Herceptin after they were first treated. They were not grown with Herceptin to make sure they stayed resistant. However, these cells have remained resistant for 30+ passages and they still retain the overexpression of HER-2 and are resistant to growth inhibition due to Herceptin.

This cell line is valuable in the study of Her2 positive breast cancer resistant to herceptin therapy.

BT-474 (HTB-20) cells were grown in 10 µg/mL Herceptin for several weeks until the resulting cells (clones) were defined as resistant to Herceptin treatment. These resistant cells were grown in standard RPMI with 10% fetal bovine serum for many years under different conditions but the cells enclosed have not been exposed to Herceptin after they were first treated. They were not grown with Herceptin to make sure they stayed resistant. However, these cells have remained resistant for 30+ passages and they still retain the overexpression of HER-2 and are resistant to growth inhibition due to Herceptin. This cell line has overexpressed HER-2 and yet is resistant to herceptin (Trastuzumab) under in vitro conditions but sensitive to ADCC activity.

**REFERENCIA N°: ATCC N°: TIB-48** (lote No1112492) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Mus musculus*, mouse; T lymphoblast; Thymus

**MORFOLOGÍA:** lymphoblast; Suspension

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, Catalog No. 30-2002. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:**

**CARIOTIPO:**

**ANTIGEN EXPRESSION:** H-2k

**GENES EXPRESSED:**

**ISOTYPE:**

**DNA PROFILE: STR-PCR Data:**

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by addition or replacement of fresh medium. Start cultures at  $2 \times 10^5$  cells/mL and maintain between  $1 \times 10^5$  and  $1 \times 10^6$  cells/mL.

**Medium Renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** R Hyman, Tumor Immunology Bank

**REFERENCIAS:** alph P. Retention of lymphocyte characteristics by myelomas and theta+ lymphomas: sensitivity to cortisol and phytohemagglutinin. J. Immunol. 110: 1470-1475, 1973. PubMed: [4541304](#)

Kohler G, et al. Derivation of hybrids between a thymoma line and spleen cells activated in a mixed leukocyte reaction. Eur. J. Immunol. 7: 758-761, 1977. PubMed: [563329](#)

Ralph P, Nakoinz I. Inhibitory effects of lectins and lymphocyte mitogens on murine lymphomas and myelomas. J. Natl. Cancer Inst. 51: 883-890, 1973. PubMed: [4542714](#)

Goldsby RA, et al. Hybrid cell lines with T-cell characteristics. Nature 267: 707-708, 1977. PubMed: [301614](#)

Hammerling GJ. T lymphocyte tissue culture lines produced by cell hybridization. Eur. J. Immunol. 7: 743-746, 1977. PubMed: [304002](#)

**COMENTARIOS:** This line was derived from BW5147.3 ([ATCC TIB-47](#)). Strain AKR/J.

The cells are resistant to 0.1 mM 6-thioguanine. Unlike the parental line, these cells are sensitive to HAT. Tested and found negative for ectromelia virus (mousepox).

### **BxPC-3**

**REFERENCIA N°: ECACC N°: 93120816 (LOTE 05H025) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human primary pancreatic adenocarcinoma

**MORFOLOGÍA:** Epitelial, adherente

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 1mM Piruvato sódico + 10% Suero bovino fetal.

**CARIOTIPO:** 2n = 59, near triploid

**PRODUCTOS:** Mucina

**N° PASE:** 38

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD: 1**

**REFERENCIAS:** Clin Lab Med 1982;2:567; Cancer Invest 1986;4:15

**COMENTARIOS:** Derived from a 61 year old female with a primary adenocarcinoma of the pancreas. BxPC-3 cells produce mucin and the tumour produced in a nude mouse is moderately well to poorly differentiated like the primary adenocarcinoma. Depositor: Dr M Ferrari, Instituto Zooprofilattico, Brescia

## **CACO-2**

**REFERENCIA N°: ECACC N°: 86010202 lote (09I008) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** colon humano

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2 mM GLUTAMINA + 1% de aminoácidos no esenciales + 1mM Piruvato sódico + 10% Suero bovino fetal.

**NUMERO DE PASE:** 52

**CARIOTIPO:** hipertetraploide

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD: 1**

**MORFOLOGÍA:** Epitelial

**REFERENCIAS:** Fogh J, et al. One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. J. Natl. Cancer Inst. 59: 221-226, 1977. PubMed: 327080 Adachi A, et al. Productive, persistent infection of human colorectal cell lines with human immunodeficiency virus. J. Virol. 61: 209-213, 1987. PubMed: 3640832 Trainer DL, et al. Biological characterization and oncogene expression in human colorectal carcinoma cell lines. Int. J. Cancer 41: 287-296, 1988. PubMed: 3338874

**COMENTARIOS:** Se aisló de un tumor de colon primario de un hombre caucasiano de 72 años usando la técnica del explante

## CHO

**REFERENCIA N°: ECACC N°: 85050302 (lote CB No1824) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Hamster Chinese ovary

**MORFOLOGÍA** Epithelial; Adherent

**MEDIO DE CULTIVO:** Ham's F12 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Hypodiploid, modal no. 20

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:10 i.e. seeding at 1-3x10000 cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Dr R Downing, PHLS CAMR, Porton Down, Salisbury

**REFERENCIAS:** J Exp Med 1958;108:945

**COMENTARIOS:** A cell line originally derived from Chinese Hamster Ovary cells by Puck in 1957. The cells have an absolute requirement for L-proline

## CAL-27

**REFERENCIA N°: ATCC N°: CRL-2095 (lote No58078592) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** tongue, human, squamous cell carcinoma

**MORFOLOGÍA** epitelial

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, Catalog No. 30-2002. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:** aneuploid; modal number = 43

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 10,12  
D13S317: 10,11  
D16S539: 11,12  
D5S818: 11,12  
D7S820: 10  
THO1: 6,9.3  
TPOX: 8

vWA: 14,17

**PROCEDIMIENTO DE SUBCULTIVO:** Remove spent medium, add fresh 0.25% trypsin, 0.53 mM EDTA solution, rinse and remove trypsin. Add fresh trypsin and let the culture sit at room temperature (or at 37°C) until the cells detach. Add fresh medium, aspirate and dispense into new flasks.

**Subcultivation Ratio:** A subcultivation ratio of 1:6 is recommended

**Medium Renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** 1

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country..*

**DEPOSITOR:** C Cardona

**REFERENCIAS:** Gianni J, et al. Two new human tumor cell lines derived from squamous cell carcinomas of the tongue: establishment, characterization and response to cytotoxic treatment. *Eur. J. Cancer Clin. Oncol.* 24: 1445-1455, 1988. PubMed: 3181269

**COMENTARIOS:** Cal 27 was established in 1982 by J. Gianni (Centre Antoine Lacassagne, Nice Cedex, France) from tissue taken prior to treatment from a 56 year old Caucasian male with a lesion of the middle of the tongue.

Solid tumors developed within 6 weeks in nude mice inoculated with  $2 \times 10^6$  cells subcutaneously.

CAL 27 cells are epithelial, polygonal with a highly granular cytoplasm. Immunocytochemical studies show strong positive staining with anti keratin antibodies. The cells do not grow well in semi-solid medium.

Marked inhibition of thymidine incorporation was observed in the presence of VP16 (etoposide), CCNU (1-[2-chloroethyl]-3-cyclohexyl-1-nitrosourea), VM26 (teniposide), ADM (adriamycin), CPA (cyclophosphamide), and MTX (methotrexate).

CAL 27 cells were resistant to treatment with VDS (vindesine sulfate), CDP (cis-platinum) or ACTD (actinomycin D).

A culture submitted to the ATCC in December 1993 was found to be contaminated with mycoplasma. Progeny were cured by a 21-day treatment with BM Cytcline.

## CCD-13Lu

**REFERENCIA N°: CCL-200 ATCC N°:** (lote No58078683) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human, lung, carcinoma

**MORFOLOGÍA:** fibroblasto, adherente

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:** **The cells senesce at about population doubling level (PDL) 19.**

**The current stock is at PDL 7.**

**CARIOTIPO:** normal human male; diploid; stable

**DNA PROFILE:** STR-PCR Data:

**ISOENZIMAS:** G6PD, A

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used in this protocol are for 75 cm<sup>2</sup> flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin-0.53mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).

**Note:** To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** 1:2 to 1:4

**Medium Renewal:** Every 2 to 3 days

**Note:** For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 10 in *Culture of Animal Cells, a Manual of Basic Technique* by R. Ian Freshney, 3rd edition, published by Alan R. Liss, N.Y., 1994.

**NIVEL DE BIOSEGURIDAD:** 1. ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

**DEPOSITOR:** MI Cour

**REFERENCIAS:**

**COMENTARIOS:** Derived from normal lung tissue from a patient with pancreatic carcinoma. Male. Black. 71 years

**CCD-18Co**

**REFERENCIA: N° ATCC: CRL-1459 (lote 63624239) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Colon humano normal

**MORFOLOGÍA:** fibroblasto

**MEDIO DE CULTIVO:** EMEM con 2mM glutamina + 1.5 g/ L bicarbonato sódico + 1 mM piruvato sódico + 0.1 mM de NEAA + 10% Suero bovino fetal. El medio está formulado para incubar a 37° C en atmósfera con 5% CO<sub>2</sub>. También se puede usar el medio DMEM (glucosa 4,5 g/L) + 2 mM GLUTAMINA + 1mM Piruvato sódico + 10% Suero bovino fetal.

NUMERO DE PASE: 24. Adquiere la senescencia a partir del pase 42

**CARIOTIPO:**

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37° C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** M. I. Cour

**REFERENCIAS:** Sugarman BJ , et al. Recombinant human tumor necrosis factor-alpha: effects on proliferation of normal and transformed cells in vitro. Science 230: 943-945,1985.PubMed:3933111

Hinterleitner TA , et al. Il-1 stimulates intestinal myofibroblast COX gene expression and augments activation of Cl- secretion in T84 cells. Am. J. Physiol. 271: C1262-C1268, 1996. PubMed: 8897833

**COMENTARIOS:** Esta línea alcanza la senescencia a PDL=42. Su crecimiento se mejora mediante la adición de TNFalfa al medio

**CCD-25Lu**

**REFERENCIA N°: ATCC N°:CCL-215 (lote No3736181) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** human, lung, glioma.

**MORFOLOGÍA :** fibroblasto, adherente

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%

**NUMERO DE PASE:**

**CARIOTIPO:** normal male; diploid; stable

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 10,12

D13S317: 10,14

D16S539: 9,11

D5S818: 12

D7S820: 8,11

THO1: 6,7

TPOX: 11,12

vWA: 17,18

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used in this protocol are for 75 cm<sup>2</sup> flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin-0.53mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
**Note:** To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** 1:2 to 1:4

**Medium Renewal:** Every 2 to 3 days

**Note:** For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 10 in *Culture of Animal Cells, a Manual of Basic Technique* by R. Ian Freshney, 3rd edition, published by Alan R. Liss, N.Y., 1994.

**NIVEL DE BIOSEGURIDAD:** 1 ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and*

*Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitroge

**DEPOSITOR:** S Dilworth, 1977

#### REFERENCIAS:

**COMENTARIOS:** The line was established from the lung of a patient who died of glioma of the brain stem.  
Male. White, 6 weeks.

#### CCD841CoN

**REFERENCIA N°:** CRL-1790ATCC N°: (lote No60018093) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, Large intestine; Colon, Normal

**MORFOLOGÍA** epitelial, Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:** The line is diploid and no consistent marker chromosomes were observed.

DNA PROFILE: STR-PCR Data:

Amelogenin: X

CSF1PO: 10,11  
D13S317: 11,13  
D16S539: 10,11  
D5S818: 12,13  
D7S820: 11  
THO1: 7,8  
TPOX: 9,10  
vWA: 14,18

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with Ca<sup>++</sup>/Mg<sup>++</sup> free Dulbecco's phosphate-buffered saline (D-PBS) or 0.25% (w/v) Trypsin - 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 1.0 to 2.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Transfer cell suspension to a centrifuge tube and spin at approximately 125 x g for 5 to 10 minutes. Discard supernatant.
6. Resuspend the cell pellet in fresh growth medium. Add appropriate aliquots of the cell suspension to new culture vessels.
7. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:2 to 1:3 is recommended

**Medium Renewal:** Twice per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** A Thompson

**REFERENCIAS:**

**COMENTARIOS** 21 weeks gestation, Female. Morphologically the cells resemble epithelial cells; however, the cells do not contain keratin and definitive evidence of epithelial origin is lacking.

**CCD-1064Sk**

**REFERENCIA Nº: ATCC Nº: CRL-2076 (LOTE 61923879) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** fibroblasto humano, piel

**MORFOLOGÍA:** fibroblasto

**MEDIO DE CULTIVO:** DMEM (EBSS) + 2 mM GLUTAMINA + 1mM Piruvato sódico + 10% Suero bovino fetal.

**NUMERO DE PASE:** 13

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

#### REFERENCIAS:

**COMENTARIOS:** The line was established from skin taken from normal foreskin. The cells are capable of approximately 54 population doublings before the onset of senescence.

#### CHSE-214

**REFERENCIA Nº: ECACC Nº: 91041114 (lote CB No00F031) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Salmon embryo, Fish

**MORFOLOGÍA** Adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** Not specified

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6; i.e seeding at 1-4 x 10,000 cells per cm using 0.25% trypsin or trypsin/EDTA, cells detach after 5-10 minutes at room temperature. Grow cells in dark (e.g. wrapped in foil); 5% CO<sub>2</sub>; 21°C.

Freeze cells in 5% DMSO and 95% foetal bovine serum (FBS). Fish cell lines detach easily during transit if the culture is too young. For resuscitation seed flasks at 4-5 x 10,000 cells per cm and then split cells 1:3 to 1:4 and culture for at least one week with 1-2 media changes before shipping.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK).

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from ATCC

**PATENTES:** None specified by Depositor

**REFERENCIAS:** Ann NY Acad Sci 1965;126:566-586 In Vitro 1984;20:671-676

**COMENTARIOS:** Derived from a Chinook salmon (*Oncorhynchus tshawytscha*) embryo, susceptible to a wide range of fish viruses and in many instances replicate high titres.

**CMT-93**

**REFERENCIA Nº: ECACC Nº89111413. SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** carcinoma de recto de ratón

**MORFOLOGÍA:** epitelial adherente

**MEDIO DE CULTIVO:** DMEM (EBSS) + 2 mM GLUTAMINA + 1mM Piruvato sódico + 10% Suero bovino fetal.

NUMERO DE PASE:

**CARIOTIPO:** hiperdiploide n 50

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5%

de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** J Pathol 1978;124:35

**COMENTARIOS:** Procedente de un ratón C57BL/1CRF macho de 19 meses de edad, que había recibido una inyección de MAMA, cada semana durante 18 meses. Las células producen grandes tumores en ratones desnudos a partir del mes.

## **CPAE**

**REFERENCIA Nº: ECACC Nº:86111401** (lote No 01J018) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** bovine, Artery, Endothelial

**MORFOLOGÍA:** adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 20% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** 2n = 60, diploid

**DNA PROFILE:** STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:2 to 1:4 i.e. seeding at 2-4x10,000 cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Hazard Group (ACDP) 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Obtained from ATCC (ATCC CCL 209)

**REFERENCIAS:** None specified by depositor

**COMENTARIOS:** Established from the main stem pulmonary artery of a young, female cow (*Bos taurus*). The cells have angiotensin-converting enzyme activity. BVDV positive. Applications in Enzymatic studies.

## **CT26.WT**

**REFERENCIA N°: ATCC N°: CRL-2638 (LOTE 61559123) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Mus musculus*, mouse colon carcinoma

**MORFOLOGÍA:** fibroblasto, adherente

**MEDIO DE CULTIVO:** RPMI 1640 + 2 mM GLUTAMINA + 1mM Piruvato sódico + 10% Suero bovino fetal.

**TUMORIGENICA:** si

**EFFECTOS:** in BALB/c mice. Mice inoculated, subcutaneously, developed lethal tumors at 80% frequency with 10(3) cells and at 100% with 10(4) cells. Pulmonary metastases developed when mice were inoculated, intravenously, with 10(4) cells

**Antigen Expression:** H-2d

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** N Restifo

**REFERENCIAS:** Wang M, et al. Active immunotherapy of cancer with a nonreplicating recombinant fowlpox virus encoding a model tumor-associated antigen. J. Immunol. 154: 4685-4692, 1995. PubMed: [7722321](#)

**COMENTARIOS:** CT26 is an N-nitroso-N-methylurethane-(NNMU) induced, undifferentiated colon carcinoma cell line. It was cloned to generate the cell line designated CT26.WT (ATCC [CRL-2638](#)). The cell line can be used with CT26.CL25 (ATCC [CRL-2639](#)) as a model for testing immunotherapy protocols and in studies on the host immune response. CT26.WT was stably transduced with the retroviral vector LXS<sub>N</sub> that contains the lacZ gene encoding the model tumor associated antigen (TAA), beta-galactosidase (beta-gal) to obtain the lethal subclone CT26.CL25 (ATCC [CRL-2639](#)).

The growth rate and lethality of CT26.CL25 and CT26.WT is virtually identical despite the expression by CT26.CL25 of the model TAA, beta-galactosidase, in normal mice.

A culture submitted to the ATCC in July of 2001 was found to be contaminated with mycoplasma. Progeny were cured by a 21-day treatment with BM Cycline. The cells were assayed for mycoplasma, by the Hoechst stain, PCR and the standard culture test, after a six-week period following treatment. All tests were negative

## **C2C12**

**REFERENCIA Nº: ECACC Nº: 91031101 (lote No08F021) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse C3H muscle myoblast

**MORFOLOGÍA** adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10-15% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 22

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Cells can be relatively slow growing when resuscitated from frozen taking 4-5 days to reach 50% confluence when seeded at 2x1,000 cells/cm<sup>2</sup>. Split semi-confluent cultures (50 - 70%) 1:3 to 1:6 i.e. seeding at 1-2x1,000 cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C. Do not allow cells to reach confluence as myotube formation may occur.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from ATCC

**REFERENCIAS:**

Nature 1977;270:725, Science 1985;230:758-766, J. Cell Biol. 1994; 127:1755-1766[published erratum appears in J Cell Biol 1995 Feb;128(4):following 713], J.Virol. 1997;71:169-178, Proc. Natl. Acad.Sci. USA 1996;93:14082-14087, J. Biol. Chem. 1996;271:1386  
J Anim Sci; 1996 Jun: 74(6): 1265-73

**COMENTARIOS:** Subclone from myoblast line established from normal adult C3H mouse leg muscle. Differentiates rapidly; produces extensive contracting myotubes expressing characteristic muscle proteins. Provides model to study in vitro myogenesis and cell differentiation.

## C3A (HepG2/C3A)

**REFERENCIA N°: ATCC N°: CRL-10741**(lote No 60208249) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**This material is cited in a US and/or international patent and may not be used to infringe the claims. Depending on the wishes of the Depositor, ATCC may be required to inform the Depositor of the party to which the material was furnished.**

**DESCRIPCION CELULAR:** Human cells, Liver, Carcinoma; Hepatocellular

**MORFOLOGÍA** epitelial, Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE:

### **CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 10,11

D13S317: 9,13

D16S539: 12,13

D5S818: 11,13

D7S820: 10

THO1: 9

TPOX: 8,9

vWA: 17

**Genes expressed:** alpha-fetoprotein (AFP, alpha fetoprotein); albumin; alpha2 macroglobulin (alpha-2-macroglobulin); alpha1 antitrypsin (alpha-1-antitrypsin); transferrin; alpha1 antichymotrypsin (alpha-1-antichymotrypsin); haptoglobin; ceruloplasmin; plasminogen, complement (C4); C3 activator; fibrinogen; alpha1 acid glycoprotein (alpha-1 acid glycoprotein); alpha2 HS glycoprotein (alpha-2-HS-glycoprotein); beta lipoprotein (beta-lipoprotein); retinol binding protein (retinol-binding protein)

## PROCEDIMIENTO DE SUBCULTIVO:

Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Baylor College of Medicine

**PATENTS:** 5,290,684

This material was deposited with the ATCC Patent Depository to fulfill U.S. or international patent requirements. This material may not have been produced or characterized by ATCC. As an International Depository Authority (IDA) for patent deposits, ATCC is required to complete viability testing only at time of initial deposit of patent material. Patent deposits are made available on behalf of the Depositor when the pertinent U.S. or international patent is issued, but material may not be used to infringe the patent claims.

**REFERENCIAS:** ver en web ATCC

**COMENTARIOS:** Male, White, 15 years.

This cell line is a suitable transfection host.

C3A is clonal derivative of Hep G2 that was selected for strong contact inhibition of growth, high albumin production, high production of alpha fetoprotein (AFP) and ability to grow in glucose deficient médium. As the cells become confluent, there is a marked reduction in AFP secretion and an increase in albumin secretion.

Gluconeogenesis activity is strongly oxygen dependent.

The cells have nitrogen metabolizing activity comparable to perfused rat livers.

There is no evidence of a Hepatitis B virus genome in this cell line.

## DAOY

**REFERENCIA N°: ATCC N°: HTB-186** (lote No2056451) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Brain; Cerebellum, *Homo sapiens*, human, Desmoplastic Cerebellar Medulloblastoma

**MORFOLOGÍA:** Adherent, polygonal

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:** This is a hypertetraploid human cell line with a modal number between 93 and 99. The frequency of cells with higher ploidies is 2.0%. However, since the stemline chromosome number is high, the estimate for the polyploidy is tentative. Thirteen or more marker chromosomes were common to all cells. Of these, many had two to four copies per cell. Among the markers were: t(1q5q), t(13q;?), 15p+, 7q+, der(9)t(3;9)(p21;q34) and eight others. In most cells, the 15p+ has three copies and der(9) has four copies. Some cells have del(1)(p11). Normal N12, N14, N15 and N19 tend to have four or more copies per cell. There are two normal X chromosomes in most cells, but there is no detectable normal Y.

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X  
CSF1PO: 11  
D13S317: 13,14  
D16S539: 10  
D5S818: 11,13  
D7S820: 8,10  
THO1: 9  
TPOX: 8,10  
vWA: 14,20

**ISOENZYMES:**

AK-1, 1  
ES-D, 1-2  
G6PD, B  
GLO-I, 1  
Me-2, 1  
PGM1, 2  
PGM3, 1-2

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 ml of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C, 5% CO<sub>2</sub>

**Subcultivation Ratio:** A subcultivation ratio of 1:4 to 1:6 is recommended

**Medium Renewal:** 2 to 3 times per week

Population doubling time: Approximately 34 hrs

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.* ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon

thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

## DH82

**REFERENCIA Nº: ECACC Nº: 94062922 (lote No99G031) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**PATENTES:** This material is cited in a US and/or other Patent and may not be used to infringe parent claims. US Patent No. 5,192,679

**DESCRIPCION CELULAR:** Canine Monocyte-macrophage

**MORFOLOGÍA** Macrophage

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 15% Foetal Bovine Serum (FBS) (Heat Inactivated).

NUMERO DE PASE:

**CARIOTIPO:** Not specified

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Cells are semi-adherent, i.e. some cells grows in suspension, whilst most attach to the surface and may flatten. Attached cells should be removed with 0.02% EDTA. Split sub-confluent cultures (70-80%) i.e. seeding at 2-4x10,000 cells/cm<sup>2</sup>; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from ATCC

**REFERENCIAS:** Wellman ML, Krakowka S, Jacobs RM, Kociba GJ 1988 A macrophage-monocyte cell line from a dog with malignant histiocytosis. In Vitro Cell Dev Biol.24(3):223-9. [PMID: 3350786](#)

Gröne A, Fonfara S, Baumgärtner W. 2002 Cell type-dependent cytokine expression after canine distemper virus infection. *Viral Immunol.* 15(3):493-505. [PMID: 12479398](#)

**COMENTARIOS:** Derived from a ten year old male golden retriever with malignant histiocytosis. The cells have a macrophage-like morphology and are able to phagocytose latex particles. They are positive for Fc-gamma receptors and are negative for Fc-mu and C3b receptors. DH82 cells do not produce IL-1.

### **DLD-1**

**REFERENCIA N°: ECACC N°: 90102540**(lote No03H003) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human, colon, Adenocarcinoma

**MORFOLOGÍA** Epithelial, Adherent

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** 2n = 46, pseudodiploid

DNA PROFILE: STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 11,12

D5S818: 13

D7S820: 10,12

D13S317: 8,11

D16S539: 12,13

TH01: 7,9.3

TPOX: 8,11

vWA: 18,19

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:10 i.e. seeding at 1-3 x 10,000 cells/cm<sup>2</sup> using 0.05% trypsin, 0.02% EDTA.

**NIVEL DE BIOSEGURIDAD:** Hazard Group (ACDP) 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Obtained from ATCC (ATCC CCL 221)

**REFERENCIAS:** Dexter DL, Barbosa JA, Calabresi P 1979 N,N-dimethylformamide-induced alteration of cell culture characteristics and loss of tumorigenicity in cultured human colon carcinoma cells. *Cancer Res.* 39(3):1020-5 [PMID: 427742](#).

**COMENTARIOS:** Derived from human colorectal adenocarcinoma. The cells have been used in the study of polar solvents on cell characteristics. The four cell lines: DLD-1 (90102540), HCT-15 (91030712), HCT-8 (90032006) and HRT-18 (86040306) have been shown to have a common genetic origin see Vermeulen SJ, Chen TR, Speleman F, Nollet F, Van Roy FM, Mareel MM 1998 Did the four human cancer cell lines DLD-1, HCT-15, HCT-8, and HRT-18 originate from one and the same patient? Cancer Genet Cytogenet. 107(1):76-9. PMID: 9809040. This has been confirmed at ECACC by STR profiling.

**DOK**

**REFERENCIA N°: ECACC N°: 94122104**(lote No04E001) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human; Tongue; Oral Dysplasia

**MORFOLOGÍA:** Epithelial; Adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 5µg/ml Hydrocortisone + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 25

**CARIOTIPO:** Aneuploid

**PRODUCTS:** p53

**ANTIGEN EXPRESSON:**

**GENES EXPRESSED:**

**ISOTYPE:**

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y

CSF1PO: 12

D5S818: 12

D7S820: 11,13

D13S317: 11,13

D16S539: 9,12

TH01: 6,8

TPOX: 10

vWA: 14,18

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:10 i.e. seeding at 2-4x10,000 cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Dr S E Chang, Department of Virology, Royal Postgraduate Medical School, London

**REFERENCIAS:** Int J Cancer 1992;52:896; Br J Cancer 1994;70:591

**COMENTARIOS:** The dysplastic oral keratinocyte cell line DOK was isolated from a piece of dorsal tongue from a 57 year old man. After a squamous-cell carcinoma was removed from the patient, who had been a heavy smoker, the remaining dysplasia was removed subsequently and used to initiate primary cultures leading to the establishment of DOK. The degree of dysplasia in the patient was described as mild to moderate. The cells show some stratification in confluent cultures and contain a keratin profile similar to the original dysplasia. Growth is stimulated by hydrocortisone and inhibited by cholera toxin. Expression of p53 is increased and a 12 bp in-frame deletion of the p53 gene (codon 188-191) could be identified. DOK cells are non-tumourigenic in athymic nude mice.

Study of oral keratinocytes, multi-stage oral carcinogenesis and carcinogens

**D283Med**

**REFERENCIA Nº: ATCC Nº: HTB-185**(lote No 2856937) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, Medulloblastoma, Brain; Cerebellum

**MORFOLOGÍA** Mixed: multicellular aggregates in suspension and some adherent cells, epithelial,

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:**

**CARIOTIPO:** The karyotype is 45, XY, -7, -8, -17, -20, der(20)t(1;20)(q12;q13), 8q+, 17p+ (range = 41 to 46). This is a hypodiploid cell line with a frequency of higher ploidies of 5.4%. Three marker chromosomes are present in all cells. They are: der(20)t(1;20)(q12;q13), 8q+ and 17p+. N7, N17 and N20 have single copies. The single X is structurally normal, and the Y chromosome is present as confirmed by fluorescence microscopy.

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y

CSF1PO: 9,12

D13S317: 8,10

D16S539: 11  
D5S818: 11  
D7S820: 10  
THO1: 7  
TPOX: 8,11  
vWA: 16,18

**ISOENZYMES:**

AK-1, 1  
ES-D, 1  
G6PD, B  
GLO-I, 2  
Me-2, 0  
PGM1, 1  
PGM3, 1

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by addition or replacement of medium. Adherent cells can be dislodged by scraping, and cultures can be established by resuspending a cell pellet at  $5 \times 10^5$  viable cells/mL. Maintain cultures between  $4 \times 10^4$  and  $8 \times 10^5$  cells/mL.

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**GENES EXPRESSED:** The cells produce tumors in nude mice and the resulting tumors are glutamine synthetase positive; neuron specific enolase positive; glial fibrillary acidic proteins negative; S100 (S-100) protein negative; The cells express elevated levels of four biochemical markers of SCLC (neuron specific enolase; the brain isoenzyme of creatine kinase; L-DOPA decarboxylase; bombesin-like immunoreactivity)

**DEPOSITOR:** HS Friedman

**REFERENCIAS:** Consultar web ATCC

**COMENTARIOS:** The D283 Med cell line was established in 1985 by Friedman et al. from malignant ascites cells and a peritoneal metastasis from a boy with medulloblastoma. Derived from metastatic site, peritoneum.

The cells produce tumors in nude mice, and the resulting tumors are positive for expression of neurofibrillary proteins, glutamine synthetase and neuron specific enolase but negative for glial fibrillary acidic proteins and S100 (S-100) protein.

**D341Med**

**REFERENCIA N°: ATCC N°: HTB-187(lote No2634982) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica

surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, Brain; Cerebellum; Medulloblastoma

**MORFOLOGÍA:** spheroid, Suspension

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 20%.

**NUMERO DE PASE:**

**CARIOTIPO:** This is a hyperdiploid (modal number = 49; range = 44 to 50) human cell line with higher ploidies occurring with a frequency of 8.5%. Four marker chromosomes are present in all cells. They are: 11HSR, i(17q), der(22)t(1;22)(q12;p12) and 8q-. There are three copies each of N6 and N18, and single copies each of N11, N17 and N22. The single X chromosome was structurally normal, and the presence of the Y chromosome was confirmed by fluorescence microscopy.

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y

CSF1PO: 10,11

D13S317: 11,13

D16S539: 12,14

D5S818: 11,12

D7S820: 9,13

TH01: 6,9.3

TPOX: 8,11

vWA: 17,18

D3S1358: 16,18

D21S11: 30,31

D18S51: 12,17

Penta\_E: 8,15

Penta\_D: 9,13

D8S1179: 14

FGA: 19,23

D19S433: 13

D2S1338: 17

**TUMORIGENIC:** Yes;

Yes, in nude mice; forms serially transplantable intercranial and subcutaneous tumors

Yes, in soft agar

**GENES EXPRESSED:** glutamine synthetase positive; neuron specific enolase positive; glial fibrillary acidic proteins negative; S100 (S-100) protein negative; neuroectodermal antigen positive, recognized by the UJ13A monoclonal antibody

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by the addition of fresh medium. Cells grow mostly as floating aggregates of irregular-shaped cell clusters with some attached cells. Clusters are alive while single cells have very low viability. Attached cells can be shaken loose.

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** HS Friedman, Human Tumor Cell Bank

**REFERENCIAS:**

**COMENTARIOS:** D341 Med is a spheroid cell that was isolated from the cerebellum of a 3.5-year-old, male with medulloblastoma. The cell line D341 Med can be used in neuroscience research.

The D341 Med cell line was established in 1988 by Friedman et al. from tumor tissue taken from a boy with medulloblastoma.

The cells produce tumors in nude mice.

The cell line is positive for expression of neurofibrillary proteins, glutamine synthetase and neuron specific enolase but negative for glial fibrillary acidic proteins and S100 (S-100) protein. The cells are positive for the neuroectodermal antigen recognized by the UJ13A monoclonal antibody.

The c-myc oncogene is amplified in D341 Med cells.

**DEPOSITOR:** HS Friedman

**SPECIAL COLLECTION:** Human Tumor Cell Bank

**REFERENCIAS:** Consultar la web de la ATCC

**COMENTARIOS:** This cell line is a suitable transfection host. The Daoy cell line was established in 1985 by P. F Jacobsen of the Royal Perth Hospital in Western Australia.

The line was derived from biopsy material taken from a tumor in the posterior fossa of a 4 year old boy.

Although the original tumor had characteristics of both neuronal and glial differentiation, these were not retained by the cell line.

Treatment of the cells with dibutyryl cyclic amp (cAMP) does not induce expression of those characteristics as measured by staining for S100 (S-100) protein and glial fibrillary acidic proteins (GFAP).

**Ehrlich-Lette Ascites strain E**

**REFERENCIA Nº: ECACC Nº: 87032503 (lote No CB 1563) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Peritoneum (Ascites), mouse,

**MORFOLOGÍA:** Fusiform, Epithelial, Adherent

**MEDIO DE CULTIVO:** NCTC 135 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS)

NUMERO DE PASE:

**CARIOTIPO:** 2n = 40

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:2 to 1:3 i.e. seeding at 3-5x10,000 cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C. Media change 3 times a week.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Obtained from ATCC (ATCC CCL 77)

**REFERENCIAS:** J Nat Cancer Inst 1965;34:725

**COMENTARIOS:** Established from the explant of a 7 day old tumour from the parental Ehrlich-Lette Ascites carcinoma. Prior to development, strain E was subjected to a schedule of seven mouse passages and six in vitro passages over a period of 17 months. The cells exhibit an unusually high mean chromosome number and possess the marker chromosomes present in the parental Ehrlich tumour. This cell line may be of use in comparative testing of anti-tumour agents in vivo and in vitro.

**EL4**

**REFERENCIA Nº: ECACC Nº: 85023105 SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse ascites lymphoma lymphoblast

**MORFOLOGÍA:** Lymphoblast

**MEDIO DE CULTIVO:** DMEM (EBSS) + 2 mM GLUTAMINA + 1mM Piruvato sódico + 10% Suero bovino fetal.

**CARIOTIPO:** 2n = 39

**PROCEDIMIENTO DE SUBCULTIVO:** Cuando se descongelan, hay que retirar la solución criopreservante mediante centrifugación a 100 g durante 5 minutos. Mantener los cultivos entre 3-9x100,00 células/mL. Se incuban a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1

**PRODUCTOS:** A surface antigen induced by leukaemia type G virus; H-2b and Thy-1.2 antigens; Interleukin 4 (IL-4), H-2b, Thy1.2

**DEPOSITOR:** Prof H Harris/Dr R Sutherland, Sir William Dunn School of Pathology, Oxford

**REFERENCIAS:** Br J Cancer 1950;4:372; Cancer Res 1965;25:813; J Immunol 1972;108:1146; J Nat Cancer Inst 1972;48:265

**BIBLIOGRAFÍA ADICIONAL EN LA WEB DE LA ECACC**

**COMENTARIOS:** Established from a lymphoma induced in a C57BL/6N mouse by 9,10-dimethyl-1,2-benzanthracene. The cells have been reported to produce low levels of type G (Gross) virus antigen (J Nat Cancer Inst 1972;48:265) H-2b, IL-4 and Thy-1.2 antigen. The cell line is resistant to cortisol and dexamethasone and is sensitive to PHA.

## **FaDu**

**REFERENCIA Nº: ATCC Nº: HTB-43(lote No59391226) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human cells; Pharynx; Squamous Cell Carcinoma

**MORFOLOGÍA:** epitelial; Adherent

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** (P16) hypodiploid to hypertriploid with modal number = 64

**ANTIGEN EXPRESSION:**

**GENES EXPRESSED:**

**ISOENZYMES:** AK-1, 1

ES-D, 1

G6PD, B

GLO-I, 2

Me-2, 2

PGM1, 2

PGM3, 1

**DNA PROFILE: STR-PCR Data:**

D3S1358: 17,18

TH01: 8

D21S11: 31.2

D18S51: 16

Penta\_E: 17,19

D5S818: 12  
D13S317: 8,9  
D7S820: 11,12  
D16S539: 11  
CSF1PO: 12  
Penta\_D: 11  
Amelogenin  
vWA: 15,17  
D8S1179: 13  
TPOX: 11  
FGA: 25  
D19S433: 14,16  
D2S1338: 19

**PROCEDIMIENTO DE SUBCULTIVO:** Remove medium, and rinse with 0.25% trypsin, 0.03% EDTA solution. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:6 is recommended

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** SR Rangan; Human Tumor Cell Bank

**REFERENCIAS:** Fogh J, et al. Absence of HeLa cell contamination in 169 cell lines derived from human tumors. J. Natl. Cancer Inst. 58: 209-214, 1977. PubMed: [833871](#)

Goodfellow M, et al. One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. J. Natl. Cancer Inst. 59: 221-226, 1977. PubMed: [77210034](#)

Rangan SR. A new human cell line (FaDu) from a hypopharyngeal carcinoma. Cancer 29: 117-121, 1972. PubMed: [4332311](#)

Faust JB, Meeker TC. Amplification and expression of the bcl-1 gene in human solid tumor cell lines. Cancer Res. 52: 2460-2463, 1992. PubMed: [1568216](#)

Giard DJ, et al. In vitro cultivation of human tumors: establishment of cell lines derived from a series of solid tumors. J. Natl. Cancer Inst. 51: 1417-1423, 1973. PubMed: [4357758](#)

**COMENTARIOS:** FaDu is a cell line with epithelial morphology that was established in 1968 from a punch biopsy of a hypopharyngeal tumor removed from a 56-year-old, White, male patient with squamous cell carcinoma. This cell line is a suitable transfection host and has applications in cancer and immuno-oncology research.

The established line was found to contain bundles of tonofilaments in the cell cytoplasm and desmosomal regions were prominent at cell boundaries.

## **G-292 CLON A141B1**

**REFERENCIA N°: ATCC N°:** CRL-1423 (lote 7390625) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** osteosarcoma, hueso, humano

**MORFOLOGÍA:** fibroblasto y adherente

**MEDIO DE CULTIVO:** McCoy's 5a Medium Modified + 10% Suero bovino fetal

**NUMERO DE PASE:** 15

**CARIOTIPO:**

**ISOENZIMAS:** G6PD, B

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** PT Peeble

**REFERENCIAS:** Peebles P, et al. Isolation of four unusual pediatric solid tumor cell lines. *Pediatr. Res.* 12: 485, 1978.

Zhang W, et al. EGF-mediated phosphorylation of extracellular signal-regulated kinases in osteoblastic cells. *J. Cell. Physiol.* 162: 348-358, 1995. PubMed: [7860643](#)

Hay, R. J., Caputo, J. L., and Macy, M. L., Eds. (1992), ATCC Quality Control Methods for Cell Lines. 2nd edition, Published by ATCC.

Caputo, J. L., Biosafety procedures in cell culture. J. Tissue Culture Methods 11:223-227, 1988.

Fleming, D.O., Richardson, J. H., Tulis, J.J. and Vesley, D., (1995) Laboratory Safety: Principles and Practice. Second edition, ASM press, Washington, DC.

Biosafety in Microbiological and Biomedical Laboratories, 5th ed. HHS. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Washington DC: U.S. Government Printing Office; 2007. The entire text is available online at <http://www.cdc.gov/OD/ohs/biosfty/bmb15/bmb15toc.htm>

**COMENTARIOS:** osteosarcoma de mujer caucasiana de 9 años

**G-361**

**REFERENCIA N°: ECACC N°: 88030401 (lote 02AO69) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian malignant melanoma

**MORFOLOGÍA:** epitelial adherente

**MEDIO DE CULTIVO:** McCoy's 5a Medium Modified + 10% Suero bovino fetal

**NUMERO DE PASE:** 17

**CARIOTIPO:** Triploid, modal n.o 69

**PRODUCTOS:** Melanina

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos sub-confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>. Las células tardan en adherirse.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:**

**REFERENCIAS:** Paediatric Res 1978;12:485

**COMENTARIOS:** Established from a malignant melanoma of a 31 year old male Caucasian. The cells produce melanin for up to 50 population doublings. The Y chromosome could not be detected in this cell line by short tandem repeat (STR)-PCR analysis when tested at ECACC. It is a known phenomenon that due to the increased genetic instability of cancer cell lines the Y chromosome can be rearranged or lost resulting in lack of detection. The cell line is identical to the source provided by the depositor based on the STR-PCR analysis

## **HCT 116**

**REFERENCIA Nº: ECACC Nº: 91091005 (lote No05K025) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human colon carcinoma

**MORFOLOGÍA** similar a epitelial

**MEDIO DE CULTIVO:** McCoy's 5a + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Modal no. 45

DNA PROFILE: STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 7,10

D13S317: 10,12

D16S539: 11,13

D5S818: 10,11

D7S820: 11,12

THO1: 8,9

TPOX: 8

vWA: 17,22

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos semiconfluentes 1:3 a 1:10 sembrando  $3 \times 10^4$  cells/cm<sup>2</sup> empleando tripsina/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from ATCC

**REFERENCIAS:** Cancer Res 1981;41:1751; J Nat Cancer Inst 1982;69:767, Cancer 1995;76:201-209, Exp. Cell Res 1994; 214:215-224 , Cancer Res. 1997; 57:488-494 , Cancer Res. 1998; 58:95-101, Proc. Natl. Acad. Sci USA 93;4816-4820, Proc. Natl. Acad. Sci USA93: 8425-8430, Cancer Res. 1997; 57:3562-3568. Abaan OD, Polley EC, Davis SR, Zhu YJ, Bilke S, Walker RL, Pineda M, Gindin Y, Jiang Y, Reinhold WC, Holbeck SL, Simon RM, Doroshow JH, Pommier Y, Meltzer PS.2013 The exomes of the NCI-60 panel: a genomic resource for cancer biology and systems pharmacology. Cancer Res. 73(14):4372-82. [PMID: 23856246](#).

**COMENTARIOS:** One of 3 strains of malignant cells isolated from a male with colonic carcinoma. Cells are tumourigenic in nude mice and form colonies on agarose. Growth and plating efficiency are enhanced by using a feeder layer of murine fibroblasts (J.Natl. Cancer Inst.1982; 69:757-771)

## **HCT-8**

**REFERENCIA N°: ECACC:** 90032006 (lote No CB2014) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human ileocecal adenocarcinoma

**MORFOLOGÍA** Epithelial, adherent

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 1mM Sodium Pyruvate (NaP) + 10% Horse Serum (HS) or 5% Horse Serum (HS) + 5% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:** 21

**CARIOTIPO:** 2n = 46, pseudodiploid

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 12

D13S317: 8,11

D16S539: 12,13

D5S818: 13

D7S820: 10,12,11.3

TH01: 7,9.3

TPOX: 8,11

vWA: 18,19

**Isoenzymes** AK-1, 1  
ES-D, 1-2  
G6PD, B  
GLO-I, 2  
Me-2, 1  
PGM1, 1  
PGM3,

**GENES EXPRESSED:** carcinoembryonic antigen (CEA) 0.5 ng/10<sup>6</sup> cells/10 days; alkaline phosphatase. The cells are positive for keratin by immunoperoxidase staining.

**CELLULAR PRODUCTS:** carcinoembryonic antigen (CEA) 0.5 ng/10 exp6 cells/10 days; alkaline phosphatase; keratin

**TUMORIGENIC:** yes Yes, in nude mice

**EFFECTS:** Tumors developed within 21 days at 100% frequency (5/5) in nude mice inoculated subcutaneously with 10<sup>7</sup> cells

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:5 to 1:10 i.e. seeding at 1-2x10,000 cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from ATCC

#### **REFERENCIAS:**

Tompkins WA, Watrach AM, Schmale JD, Schultz RM, Harris JA 1974 Cultural and antigenic properties of newly established cell strains derived from adenocarcinomas of the human colon and rectum. J Natl Cancer Inst. 52(4):1101-10 PMID: 4826581.

Nelson-Rees WA, Flandermeyer RR, Hawthorne PK 1975 Distinctive banded marker chromosomes of human tumor cell lines. Int J Cancer. 16(1):74-82 PMID: 1058173.

**PATENTS:** None specified by Depositor

**COMENTARIOS** From a 67 year old male.

The four cell lines: DLD-1 (90102540), HCT-15 (91030712), HCT-8 (90032006) and HRT-18 (86040306) have been shown to have a common genetic origin see Vermeulen SJ, Chen TR, Speleman F, Nollet F, Van Roy FM, Mareel MM 1998 Did the four human cancer cell lines DLD-1,

HCT-15, HCT-8, and HRT-18 originate from one and the same patient? Cancer Genet Cytogenet. 107(1):76-9. PMID: 9809040. This has been confirmed at ECACC by STR profiling.

## **HCT 116**

**REFERENCIA Nº: ECACC Nº: 91091005 (lote No05K025) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human colon carcinoma

**MORFOLOGÍA** similar a epitelial

**MEDIO DE CULTIVO:** McCoy's 5a + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** Modal no. 45

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 7,10

D13S317: 10,12

D16S539: 11,13

D5S818: 10,11

D7S820: 11,12

THO1: 8,9

TPOX: 8

vWA: 17,22

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos semiconfluentes 1:3 a 1:10 sembrando 3x10,000 cells/cm<sup>2</sup>empleando tripsina/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from ATCC

**REFERENCIAS:** Cancer Res 1981;41:1751; J Nat Cancer Inst 1982;69:767, Cancer 1995;76:201-209, Exp. Cell Res 1994; 214:215-224 , Cancer Res. 1997; 57:488-494 , Cancer Res. 1998; 58:95-101, Proc. Natl. Acad. Sci USA 93;4816-4820, Proc. Natl. Acad. Sci USA93: 8425-8430, Cancer

Res. 1997; 57:3562-3568. Abaan OD, Polley EC, Davis SR, Zhu YJ, Bilke S, Walker RL, Pineda M, Gindin Y, Jiang Y, Reinhold WC, Holbeck SL, Simon RM, Doroshow JH, Pommier Y, Meltzer PS. 2013 The exomes of the NCI-60 panel: a genomic resource for cancer biology and systems pharmacology. Cancer Res. 73(14):4372-82. [PMID: 23856246](#).

**COMENTARIOS:** One of 3 strains of malignant cells isolated from a male with colonic carcinoma. Cells are tumourigenic in nude mice and form colonies on agarose. Growth and plating efficiency are enhanced by using a feeder layer of murine fibroblasts (J.Natl. Cancer Inst.1982; 69:757-771).

### **HEL92.1.7**

**REFERENCIA Nº: ECACC Nº: 92111706** (lote No03E007) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human; Blood; Erythroleukaemia

**MORFOLOGÍA:** Lymphoblastoid; suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Not specified

**ANTIGEN EXPRESSON:**

**GENES EXPRESSED:**

**ISOTYPE:**

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y

CSF1PO: 10

D5S818: 11

D7S820: 7

D13S317: 9,11

D16S539: 11

TH01: 7

TPOX: 11

vWA: 14,17

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 3-9x100,000 cells/ml; 5% CO<sub>2</sub>; 37°C. Cell growth can be very slow on resuscitation. Stand the culture flask up overnight using 20% FBS.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:**

**REFERENCIAS:** Science 1982;261:1233

**COMENTARIOS:** Derived from 30 year old male Caucasian. Expresses  $\beta$ -2 microglobulin and Ia antigen. Used in the study of erythroid cell differentiation and globin gene expression. Analogous to Friend cell leukaemia in mice. K-562 has similar characteristics. Erythroid cell differentiation studies, induced globin synthesis

### **HeLa229**

**REFERENCIA N°: ECACC N°: 86090201 (lote No CB NoCB427) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human, Cervix

**MORFOLOGÍA:** Epithelial, adherent

**MEDIO DE CULTIVO:** EMEM (HBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:**

**DNA PROFILE:** Aneuploid

**STR-PCR Data:**

Amelogenin: X  
CSF1PO: 9,10  
D5S818: 11,12  
D7S820: 8,12  
D13S317: 12,13.3  
D16S539: 9,10  
TH01: 7  
TPOX: 8,12  
vWA: 16,18

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at 2-4x10,000 cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Obtained from ATCC (ATCC CCL 2.1)

**REFERENCIAS:** Am J Pathol 1985;119:361

**COMENTARIOS:** Derived from the parent HeLa line but differs chiefly in its relative insusceptibility to polioviruses. The presence of human papilloma virus 18 (HPV-18) sequences in HeLa cells has been reported.

Tumourigenicity and virus studies, poliovirus 1 and AD3

## HeLa

**REFERENCIA N°: ECACC N°: 93021013 (lote1758) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Carcinoma humano de cervix

**MORFOLOGÍA** Epitelial

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** 2n = 46 Aneuploide

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1:6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** Obtained from ATCC

**REFERENCIAS:** Cancer Res 1952;12:264; Proc Soc Exp Biol Med 1954;87:480

**COMENTARIOS:** Derived from a cervical carcinoma from a 31 year old female. This was the first aneuploid line derived from human tissue maintained in continuous cell culture. Susceptible to Poliovirus type I and adenovirus type 3. Identified as a contaminant in many other cell lines. The cells should be handled under laboratory containment level 2. Ethnicity: Black.  
Susceptible a Poliovirus 1 y Ad 3.

### HeLa Ohio

**REFERENCIA N°: ECACC N°: 84121901 (lote CB No1554) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Derivative of parent HeLa line (ECACC catalogue no. 93021013).  
Cervix

**MORFOLOGÍA:** Epithelial, Adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Aneuploid

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:5 to 1:10 i.e. seeding at 1-2x10,000 cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Dr D Tyrrell, MRC Common Cold Unit, Salisbury

**REFERENCIAS:** None specified by depositor

**COMENTARIOS:** Tumourigenicity and virus studies: poliovirus 1 and Ad 3

### Hep2 (HeLa derivative)

**REFERENCIA N°: ECACC N°: 86030501 (lote n° 1695) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica

surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** carcinoma de cérvix humano

**MORFOLOGÍA:** Epitelial

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2 mM GLUTAMINA + 1% de aminoácidos no esenciales + 1mM Piruvato sódico + 10% Suero bovino fetal.

NUMERO DE PASE:

**CARIOTIPO:** Modal no. 14

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/cm<sup>2</sup> empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** Cancer Res 1954;14:660; Cancer Res 1955;15:598; Soc Exp Biol Med 1956;193:107

**COMENTARIOS:** Originated from tumours produced in irradiated-cortisonised weanling rats after injecting with epidermoid carcinoma tissue from the larynx of a 56 year old male. This cell line was found to be indistinguishable from HeLa by STR PCR DNA profiling. Therefore, the cell line should be considered as derived from HeLa. Ethnicity: Black.

### **Hep 3B**

**REFERENCIA N°: ECACC N°: 86062703 (lote No03K004) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**This material is cited in a US and/or other Patent and may not be used to infringe parent claims**

**DESCRIPCION CELULAR:** Human hepatocyte carcinoma

**MORFOLOGÍA** Epithelial, Adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** 2n = 46, modal no. 60

DNA PROFILE: STR-PCR Data:

Amelogenin: X  
CSF1PO: 8  
D13S317: 12,14  
D16S539: 10  
D5S818: 13  
D7S820: 8,10  
THO1: 6,7  
TPOX: 9  
vWA: 17

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at  $1-3 \times 10^4$  cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

ACDP Guidance: [Biological agents: Managing the risks in laboratories and healthcare premises.](#)

Hyperlinks to MSDS documents:

[Frozen cell cultures Material Safety Data Sheet](#)

[Growing cell cultures Material Safety Data Sheet](#)

[Nucleic acids derived from cell cultures Material Safety Data Sheet](#)

**DEPOSITOR:** Mr C B Morris, EMBL, Heidelberg, GERMANY

**REFERENCIAS:** Nature 1979;282:615; Science 1980;209:497

**COMENTARIOS:** Derived from an 8 year old male. Cells contain integrated Hepatitis B virus genome. However there is currently no evidence that this cell line produces infectious Hepatitis B virus. The cells should be handled under laboratory containment level 2. Ethnicity: Black

**Hep2 (HeLa derivative)**

**REFERENCIA Nº: ECACC Nº: 86030501 (lote nº 1695) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** carcinoma de cérvix humano

**MORFOLOGÍA:** Epitelial

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2 mM GLUTAMINA + 1% de aminoácidos no esenciales + 1mM Piruvato sódico + 10% Suero bovino fetal.

NUMERO DE PASE:

**CARIOTIPO:** Modal no. 14

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/cm<sup>2</sup> empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** Cancer Res 1954;14:660; Cancer Res 1955;15:598; Soc Exp Biol Med 1956;193:107

**COMENTARIOS:** Originated from tumours produced in irradiated-cortisonised weanling rats after injecting with epidermoid carcinoma tissue from the larynx of a 56 year old male. This cell line was found to be indistinguishable from HeLa by STR PCR DNA profiling. Therefore, the cell line should be considered as derived from HeLa. Ethnicity: Black.

### **Hepa-1c1c7**

**REFERENCIA Nº: ECAAC Nº: 95090613 (lote No05G006) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse, Hepatoma

**MORFOLOGÍA** Epithelial, adherent

**MEDIO DE CULTIVO:** Alpha MEM without nucleosides + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**RECEPTORS:** Aryl hydrocarbon

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:4 to 1:10 i.e. seeding at  $1-2 \times 10^6$  cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Obtained from ATCC (ATCC CRL 2026)

**REFERENCIAS:** Proc Natl Acad Sci, USA 1979;76:373; Biochemie 1991;73:61

**COMENTARIOS:** Hepa-1c1c7 was cloned from the cell line Hepa-1cl which was obtained from Hepa-1. Hepa-1 was derived from the BW7756 hepatoma that developed in a C57L mouse. Hepa-1c1c7 cells express the aryl hydrocarbon (Ah) receptor and were shown to be highly inducible for cytochrome P450IA1. A variety of mutants from this cell line have been established. Study of Ah receptors, P450IA1 regulation

## **HEPG2**

**REFERENCIA N°: ECACC N°: 85011430 (lote CB No2440) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian hepatocyte carcinoma

**MORFOLOGÍA** Epithelial Adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Modal no. 55

DNA PROFILE: STR-PCR Data:

Amelogenin:X,Y  
CSF1PO:10,11  
D13S317:9,13  
D16S539:12,13  
D5S818:11,12  
D7S820:10  
THO1:9  
TPOX:8,9  
vWA: 17

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>. Pueden crecer formando islotes.

Requires 5% DMSO and 95% foetal bovine serum (FBS) as cryoprotectant. Growing orders are recommended due to difficulties that can be experienced during the initial start-up of this cell line. Replacements will be charged at full cost where claims cannot be substantiated

**NIVEL DE BIOSEGURIDAD:** 2. Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Prof B Knowles, Wistar Institute, Philadelphia

**REFERENCIAS** Nature 1979;282:615; Science 1980;209:497; In Vitro Cell Dev Biol 1987;23:349

**COMENTARIOS:** The Hep G2 cell line has been isolated from a liver biopsy of a male Caucasian aged 15 years, with a well differentiated hepatocellular carcinoma. The cells secrete a variety of major plasma proteins e.g. albumin, alpha2-macroglobulin, alpha 1-antitrypsin, transferrin and plasminogen. They have been grown successfully in large scale cultivation systems. Hepatitis B virus surface antigens have not been detected. The cells will respond to stimulation with human growth hormone.

## **HL60**

**REFERENCIA N°: ECACC N°: 98070106 (lote) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian promyelocytic leukaemia

**MORFOLOGÍA** Lymphoblast

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10-20% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** Modal no. 46, pseudodiploid

**PROCEDIMIENTO DE SUBCULTIVO:**.. Esta línea celular crece en suspensión. Centrifugar las células a baja velocidad. 100–150 x g por un máximo de 5 minutos. Quitar el sobrenadante y resuspender a una densidad de 3–5 x 100,000 cells/ml en medio containing 10% de suero. Incubar a 37 C; 5% CO<sub>2</sub>.

Cell growth after resuscitation is slow, it may take up to 10 days for proliferation to be established. Check daily. Once the culture is established the serum concentration can be reduced to 10%. Maintain cultures between 1-9 x 100,000 cells/ml; 5% CO<sub>2</sub>; 37 C; at low density or they may differentiate. At ECACC it has been found to be difficult to recover cells of acceptable viability after freezing in 10% glycerol/90% FBS. We recommend using 10% DMSO/90% FBS for this purpose, but spinning out the cells at resuscitation as above to remove the DMSO as it can cause cells to differentiate. After 6 weeks in culture cells may differentiate.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** Dr Chris Bunce, Department of Medicine, University of Birmingham, UK

**REFERENCIAS:** Collins et al., (1977) Continuous growth and differentiation of human myeloid leukaemic cells in suspension culture. Nature 270:347–349.

Abaan OD, Polley EC, Davis SR, Zhu YJ, Bilke S, Walker RL, Pineda M, Gindin Y, Jiang Y, Reinhold WC, Holbeck SL, Simon RM, Doroshow JH, Pommier Y, Meltzer PS. 2013 The exomes of the NCI-60 panel: a genomic resource for cancer biology and systems pharmacology. Cancer Res. 73(14):4372-82. [PMID: 23856246](#).

**COMENTARIOS:** The cell line was derived from peripheral blood leukocytes obtained by leukopheresis of a 36-year-old Caucasian female with acute promyelocytic leukemia. It was among the first long-term suspension cultures of human myeloid leukaemic cells to be established. Approximately 10% of HL-60 cells spontaneously differentiate and differentiation can be stimulated by polar planar compounds butyrate, hypoxanthine, phorbol myristic acid (PMA, TPA), dimethylsulfoxide (DMSO, 1% to 1.5%), actinomycin D, and retinoic acid.

## **HS-Sultan**

**REFERENCIA N°: ECACC N°: 87012701 (lote No CB2765) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human, Blood, human Caucasian plasma cell plasmacytoma, Burkitt Lymphoma

**MORFOLOGÍA:** Lymphoblastoid, Suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**PRODUCTS:** Immunoglobulin G (IgG) kappa chains in spinner culture. Endoplasmic reticulum in stationary culture.

**CARIOTIPO:** Hyperdiploid modal no=48

DNA PROFILE: STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 10,11

D5S818: 12

D7S820: 8,10

D13S317: 12

D16S539: 10,11

TH01: 7,9

TPOX: 6,8

vWA: 15,19

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 3-9x100,000 cells/ml; 5% CO<sub>2</sub>; 37°C. A density of 3x1,000,000 cells/ml may be achieved.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Obtained from ATCC (ATCC CRL 1484)

**REFERENCIAS:** Nature 1974;250:507; J Immunol 1976;118:1480

**COMENTARIOS:** It has been clearly established that HS-Sultan is a subclone of the Burkitt lymphoma derived cell line JIYOYE and not a myeloma cell line. (see Drexler HG et al., 2001 Cross-contamination: HS-Sultan is not a myeloma but a Burkitt lymphoma cell line. Blood 98(12):3495-6. [PMID: 11732505](#). Drexler HG et al., 2003 False leukemia-lymphoma cell lines: an update on over 500 cell lines. Leukemia. 17(2):416-26. [PMID: 12592342](#)) Tumourigenicity studies.

**HT**

**REFERENCIA N°: ATCC N°: CRL-2260**(lote No 63990072) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human; B lymphoblast; Ascites

**MORFOLOGÍA:** lymphoblast; Suspension

**MEDIO DE CULTIVO:** RPMThe base medium for this cell line is ATCC-formulated RPMI-1640 Medium, ATCC [30-2001](#). To make the complete growth medium, add the following components to the base medium: fetal bovine serum (ATCC [30-2020](#)) to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:**

**ANTIGEN EXPRESSION:** CD19 +; CD20 +; CD21 +; CD22 +; Hle-1 +; HLA DQ +; HLA DR +; CD25 -; T cell receptor (TCR

**GENEXPRESSED:** immunoglobulin, kappa light chain

**ISOTYPE:** Kappa

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y

CSF1PO: 10

D13S317: 13,14

D16S539: 11,13

D5S818: 11,13

D7S820: 8,10

TH01: 6,7

TPOX: 11

vWA: 17,18

D3S1358: 15,16

D21S11: 29,31.2

D18S51: 12,18,19,20

Penta\_E: 10,20

Penta\_D: 13

D8S1179: 10,13

FGA: 21,22.2

D19S433: 12,15.2

D2S1338: 24,25

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by addition of fresh medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at  $2 \times 10^5$  viable cells/mL. Maintain cultures at a cell concentration between  $5 \times 10^5$  and  $1 \times 10^6$  cells/mL. Do not allow the cell concentration to exceed  $2 \times 10^6$  cells/mL.

**Medium Renewal:** 2 to 3 times a week.

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** M Beckwith, 1983

**REFERENCIAS:** Beckwith M, et al. Phorbol ester-induced, cell-cycle-specific, growth inhibition of human B-lymphoma cell lines. J. Natl. Cancer Inst. 82: 501-509, 1990. PubMed: [2313723](#)

**COMENTARIOS:** HT is a human B cell lymphoma cell line originated in 1983 by Walter J. Urba and Dan L. Longo.

HT cells express mRNA for both IgM and kappa and express low levels of kappa on the cell surface.

Exposure of HT cells to protein kinase C activating phorbol esters such as PMA and PdBu induced profound growth inhibition.

HT cells have been reported to be Epstein-Barr virus genome negative.

## **HT29**

**REFERENCIA N°: ECACC N°: 91072201 (lote 09K003) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian colon adenocarcinoma

**MORFOLOGÍA:** Epitelial

**MEDIO DE CULTIVO:** McCoy's 5a + 2 mM GLUTAMINA + 1mM Piruvato sódico + 10% Suero bovino fetal.

**CARIOTIPO:** 2n = 46, hypertriploid

**PRODUCTOS:** Secretory component of Immunoglobulin A (IgA), Carcinoembryonic antigen (CEA)

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** Human Tumor Cells In Vitro, 1975:115. Plenum Press, NY  
Abaan OD, Polley EC, Davis SR, Zhu YJ, Bilke S, Walker RL, Pineda M, Gindin Y, Jiang Y, Reinhold WC, Holbeck SL, Simon RM, Doroshov JH, Pommier Y, Meltzer PS. 2013 The exomes of the NCI-60 panel: a genomic resource for cancer biology and systems pharmacology. Cancer Res. 73(14):4372-82. [PMID: 23856246](#)

**COMENTARIOS:** Isolated from a primary tumour in a 44 year old Caucasian female. Forms a well-differentiated adenocarcinoma consistent with colony primary, grade I. Tumours also form in steroid treated hamsters. Has the following HLA profile A1,3; B12,17; Cw5

## **HUV-EC-C**

**REFERENCIA N°: ATCC N°: CRL-1730** (lote No57580505) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, umbilical vein/vascular endothelium, normal

**MORFOLOGÍA** endotelial, adherente

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated of F-12K Medium, Catalog No. 30-2004. To make the complete growth medium, add the following components to the base medium: 0.1 mg/ml heparin; 0.03-0.05 mg/ml endothelial cell growth supplement (ECGS); adjust to a final concentration of 10% fetal bovine serum.

Another medium is EGM (endotelial growth medium) and EGM bullet kit

**NUMERO DE PASE:** 23

The cells have a life expectancy of 50 to 60 population doublings.

**CARIOTIPO:** Karyology performed for one batch of CRL-1730 in 1996 reflected a hypodiploid human cell line with a modal chromosome number of 45 occurring in 72% of the cells counted, all of which had monosomic N13. The rate of polyploid cells among this population was 15.8%. This karyology differed from earlier work-ups performed on the cells that showed approximately 60% of the cells retained 2 chromosomes 13. The apparent clonal variation in cultures of CRL-1730 (most likely dependent upon passage and growth conditions) has also been noted in STR profiles with unstable alleles at D13S317 allele #9, D13S317 allele #11, and D7S820 allele #12. Other coexisting subclones include those with 46,XX,-11,-13,i(11p),i(11q) and 46,XX,+11,-13 karyotypes. For all karyotypes performed, both X chromosomes appear normal.

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 11,12  
D13S317: 9,11  
D16S539: 11,12  
D5S818: 11,12  
D7S820: 8,12  
THO1: 6,9.3  
TPOX: 8,11

vWA: 16

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes. Corning® T-75 flasks (catalog #430641) are recommended for subculturing this product.

**Note:** A high quality ECGS prepared from bovine neural tissue (Sigma Cat no. E-2759 or equivalent) should be used to propagate CRL-1730. It is best to initiate the cells with the highest recommended concentration of ECGS. Moderate to heavy debris and numerous floating cells

may be routinely observed in cultures of HUV-EC-C cells. Retain the floating cells by gentle centrifugation and add back to the adherent population.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:2 to 1:3 is recommended

**Medium Renewal:** Two to three times per week

**NIVEL DE BIOSEGURIDAD:** 1

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** H Hoshi

**REFERENCIAS:** Molestina RE, et al. Characterization of a strain of Chlamydia pneumoniae isolated from a coronary atheroma by analysis of the omp1 gene and biological activity in human endothelial cells. Infect. Immun. 66: 1370-1376, 1998. PubMed: [9529055](#)

Zahedi K. Characterization of the binding of serum amyloid P to laminin. J. Biol. Chem. 272: 2143-2148, 1997. PubMed: [8999915](#)

Lindstrom AL, et al. An in vitro model for toxin-mediated vascular leak syndrome: ricin toxin A chain increases the permeability of human endothelial cell monolayers. Blood 90: 2323-2334, 1997. PubMed: [9310483](#)

Soker S, et al. Inhibition of vascular endothelial growth factor (VEGF)-induced endothelial cell proliferation by a peptide corresponding to the exon 7-encoded domain VEGF165. J. Biol. Chem. 272: 31582-31588, 1997. PubMed: [9395496](#)

Li Y, et al. Mast cell granules potentiate endotoxin-induced interleukin-6 production by endothelial cells. J. Leukocyte Biol. 62: 211-216, 1997. PubMed: [9261335](#)

Soker S, et al. Characterization of novel vascular endothelial growth factor (VEGF) receptors on tumor cells that bind VEGF165 via its exon 7-encoded domain. J. Biol. Chem. 271: 5761-5767, 1996. PubMed: [8621443](#)

Hoshi H, McKeehan WL. Brain- and liver cell-derived factors are required for growth of human endothelial cells in serum-free culture. Proc. Natl. Acad. Sci. USA 81: 6413-6417, 1984. PubMed: [6333682](#)

**COMENTARIOS:** This cell line is a suitable transfection host. Endothelial Cell Growth Supplement (ECGS) and unidentified factors from bovine pituitary, hypothalamus or whole brain extracts are mitogenic for this line.

The cells have a life expectancy of 50 to 60 population doublings.

#### H4

**REFERENCIA N°: ATCC N°: HTB-148** (lote No70039817) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, Brain, neuroglioma

**MORFOLOGÍA** epitelial, Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:**

**CARIOTIPO:**

Modal number = 73; range = 63 to 78.

This is a hypertriploid human cell line having the modal chromosome number of 73 occurring in 26% of cells. However, cells having 75 chromosomes also occurred at a high rate (24%). Higher ploidies were found at 0.4%. At least 16 marker chromosomes are common to all metaphases examined: paired del(2)(p2209) and del(9)(p22) and single der(14)t(1;14)(p22;q22), del(3)(p2501), del(7)(q3209), del(10)(p1301), t(13q17q), t(3p13q) and at least eight others. The del(5) (p13), del(7) (q11) and a few others occurred in some, and many others were seen only once. N7 and N21 occurred in 4 or more copies per cell. Most cells had two X and two Y chromosomes

**Mycoplasma contamination:** Not detected

## STR profiling

Amelogenin: X,Y

CSF1PO: 10,12

D13S317: 12

D16S539: 11,12

D5S818: 10,12

D7S820: 8,11

THO1: 7,9

TPOX: 8,11

vWA: 14,18

## Isoenzymes

AK-1, 1

ES-D, 1

G6PD, B

GLO-I, 2

Me-2, 0

PGM1, 1-2

PGM3, 1

**Tumorigenic:** No;No, in immunosuppressed mice

Yes, in semisolid medium

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.

3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:10 to 1:15 is recommended

**Medium Renewal:** 2 to 3 times per week

#### Reagents for cryopreservation

Complete growth medium supplemented with 5% (v/v) DMSO

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** J Riggs

Human Tumor Cell Bank

#### REFERENCIAS:

**COMENTARIOS** This cell line is a suitable transfection host.

#### H9c2(2-1)

**REFERENCIA N°: ATCC N°:** CRL-1446 (lote date frozen 09/09/03) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Rattus norvegicus*, rat , heart/myocardium

**MORFOLOGÍA** mioblasto

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**RECEPTOR EXPRESION:** acetylcholine, expressed

**PRODUCTOS CELULARES:** myokinase; creatine phosphokinase; myosin

**GENES EXPRESADOS:** myokinase; creatine phosphokinase; myosin

**PROCEDIMIENTO DE SUBCULTIVO:** The myoblastic population will become depleted rapidly if the cultures are allowed to become confluent.

To prevent loss of myoblastic cells, cultures should be subcultured before they become confluent, and the line should be recloned periodically with selection for myoblastic cells.

Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes. Corning® T-75 flasks (catalog #430641) are recommended for subculturing this product.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:2 to 1:4 is recommended

**Medium Renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD: 1**

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR: W Carlisle**

**REFERENCIAS:** Kimes BW, Brandt BL. Properties of a clonal muscle cell line from rat heart. *Exp. Cell Res.* 98: 367-381, 1976. PubMed: [943302](#)

Levy AP, et al. Post-transcriptional regulation of vascular endothelial growth factor by hypoxia. *J. Biol. Chem.* 271: 2746-2753, 1996. PubMed: [8576250](#)

**COMENTARIOS:** H9c2(2-1) is a subclone of the original clonal cell line derived from embryonic BD1X rat heart tissue by B. Kimes and B. Brandt and exhibits many of the properties of skeletal muscle This cell line is a suitable transfection host. Myoblastic cells in this line will fuse to form multinucleated myotubes and respond to acetylcholine stimulation.

Fusion occurs faster if the serum concentration in the medium is reduced to one percent

## H-69

**REFERENCIA N°: ATCC N°: HTB: 119** (lote No70018326) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** carcinoma; small cell lung cancer; male; human; Caucasian

**MORFOLOGÍA:** suspension, multicell aggregates; floating aggregates

**MEDIO DE CULTIVO:** El medio base recomendado por la ATCC es RPMI-1640 Medium, (ATCC [30-2001](#)). Para realizar el medio completo hay que adicionar al medio: fetal bovine serum (ATCC [30-2020](#)) hasta una concentración final de 10%. Si se usa un medio con otra referencia, hay que comprobar que la composición es la misma (concentración de glucosa, piruvato sódico...)

NUMERO DE PASE:

**CARIOTIPO:**modalnumber=76to78;range=40to87

This is an aneuploid human male cell line. Monosomy of many of the normal chromosomes is noted as well as bisomy in this subtetraploid cell line; however, translocations and deletions involving many of the missing chromosomes are noted, and these chromosomal rearrangements appear to be stable and generally paired. Twelve marker chromosomes were identified including: der(16)t(1;16)(q21;q23), der(22)t(4;22)(q12;q13), der(12)t(11;12)(q23;p12), del(17)(p11), der(19)t(5;19)(?q21;q13) and others.

**DNA PROFILE: STR-PCR Data:**

CSF1PO: 10, 12

D13S317: 12

D16S539: 11

D5S818: 11, 13

D7S820: 9

TH01: 8, 9

TPOX: 10

vWA: 16, 17

Amelogenin: XY

**ISOENZYMES:**

AK-1, 1

ES-D, 2

G6PD, B

GLO-I, 1-2

Me-2, 1

PGM1, 2

PGM3, 1

**GENES EXPRESSED:** Oncogenes: myc +; myb +; fes +; fms +; raf +; ras +

**RECEPTOR EXPRESION:** insulin-like growth factor II (IGF II)

**PROCEDIMIENTO DE SUBCULTIVO:** Attached cells can be detached by shaking flask Allow aggregates to settle to the bottom of the flask, remove and discard the supernatant medium. Add fresh medium, disperse cells by gentle pipetting and dispense into new flasks. Do not break down aggregates. Subculture every 6 to 8 days.

Subcultivation Ratio: A subcultivation ratio of 1:2 to 1:4 is recommended

Medium Renewal: 2 times weekly

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** AF Gazdar  
Deposited *AsHomo sapiens*

**REFERENCIAS:** Little CD, et al. Amplification and expression of the c-myc oncogene in human lung cancer cell lines. *Nature* 306: 194-196, 1983. PubMed: [6646201](#)  
Bepler G, et al. Expression of p64c-myc and neuroendocrine properties define three subclasses of small cell lung cancer. *Oncogene* 4: 45-50, 1989. PubMed: [2536917](#)  
Schardt C, et al. Characterization of insulin-like growth factor II receptors in human small cell lung cancer cell lines. *Exp. Cell Res.* 204: 22-29, 1993. PubMed: [8380141](#)  
Broers JL, et al. Spontaneous changes in intermediate filament protein expression patterns in lung cancer cell lines. *J. Cell Sci.* 91: 91-108, 1988. PubMed: [2473086](#)  
Rygaard K, et al. Expression of myc family oncoproteins in small-cell lung-cancer cell lines and xenografts. *Int. J. Cancer* 54: 144-152, 1993. PubMed: [8386707](#)  
Gazdar AF, et al. Establishment of continuous, clonable cultures of small-cell carcinoma of lung which have amine precursor uptake and decarboxylation cell properties. *Cancer Res.* 40: 3502-3507, 1980. PubMed: [6108156](#)  
Adi F, et al. Establishment of Continuous, Clonable Cultures of Small-Cell Carcinoma of the Lung Which Have Amine Precursor Uptake and Decarboxylation Cell Properties. *Cancer Res.* 40: 3502-3507, 1980. PubMed: [6108156](#)  
Carney DN, et al. Establishment and identification of small cell lung cancer cell lines having classic and variant features. *Cancer Res.* 45: 2913-2923, 1985. PubMed: [2985257](#)  
Gazdar AF, et al. Characterization of variant subclasses of cell lines derived from small cell lung cancer having distinctive biochemical, morphological, and growth properties. *Cancer Res.* 45: 2924-2930, 1985. PubMed: [2985258](#)  
Kiefer PE, et al. Amplification and expression of protooncogenes in human small cell lung cancer cell lines. *Cancer Res.* 47: 6236-6242, 1987. PubMed: [2824028](#)  
Hensel CH, et al. Altered structure and expression of the human retinoblastoma susceptibility gene in small cell lung cancer. *Cancer Res.* 50: 3067-3072, 1990. PubMed: [2159370](#)  
*Lung Cancer* 4: 155-161, 1988.

Cairns P, et al. Genomic organization and mutation analysis of Hel-N1 in lung cancers with chromosome 9p21 deletions. Cancer Res. 57: 5356-5359, 1997. PubMed: [9393760](#)

Geiger T, et al. Antitumor activity of a PKC-alpha antisense oligonucleotide in combination with standard chemotherapeutic agents against various human tumors transplanted into nude mice. Anticancer Drug Des. 13: 35-45, 1998. PubMed: [9474241](#)

The cells form tumors with typical small cell carcinoma histology.

**COMENTARIOS** This cell line is aneuploid, will form colonies in soft agar and retains small cell carcinoma morphology and ultrastructure as well as APUD cell characteristics.

The cells grow in aggregates, thus cell counts are not accurate.

The cells stain positively for cytokeratins.

The line can be adapted to grow in shaker flask or spinner flask systems.

The N-myc gene is amplified, and there is expression of the mRNA and protein.

C-myc mRNA, but not protein, is expressed at a low level.

There is expression of c-myc, v-fes, v-fms, c-raf 1, Ha-ras, Ki-ras and N-ras mRNA.

The cells form tumors with typical small cell carcinoma histology.)

Yes, forms colonies in soft agar

## **IEC-6**

**REFERENCIA N°:** ECACC N°:88071401 (lote CB No 1893) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** Rat small intestine epithelial

**MORFOLOGÍA:** Epithelial adherente

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 0.1 IU/ml Insulin + 5% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:** 34

**CARIOTIPO:**

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1 Biosafety classification is based on [U.S. Public Health Service Guidelines](#), it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country

**DEPOSITOR:**

**REFERENCIAS:** J Cell Biol 1979;80:248

**COMENTARIOS:** Normal rat small intestine epithelial cells which synthesise fibronectin and collagen. Growth is inhibited by cortisol. Cells possess cell surface antigens specific for intestinal epithelial cells in vivo. Capable of at least 10 population doublings.

### **IEC 18**

**REFERENCIA Nº: ECACC Nº: 88011801 (lote 1249) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Normal rat ileum

**MORFOLOGÍA:** Epithelial

**MEDIO DE CULTIVO:** DMEM + 2 mM GLUTAMINA + 1% de aminoácidos no esenciales + 1mM Piruvato sódico + 5-10% Suero bovino fetal.

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**Nº PASE:** 37

**REFERENCIAS:** J Cell Biol 1979;80:248: J Nat Cancer Inst 1981;67:1353

**COMENTARIOS:** Derived from normal epithelial cells of the rat ileum. Cells should undergo at least 20 population doublings. The line was established using the same techniques as for IEC6 (ECACC catalogue no. 88071401). IEC 18 cells grow in small islands and do not reach confluency.

### **J.RT3-T3.5**

**REFERENCIA Nº: ATCC Nº: TIB-153 (lote No70024531) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** *Homo sapiens*, human, peripheral blood

**MORFOLOGÍA** T lymphocyte, lymphoblast, suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** 3 times per week

Cultures can be maintained by addition or replacement of fresh medium. Start cultures at  $1 \times 10^5$  cells/mL and maintain between  $1 \times 10^5$  and  $1 \times 10^6$  cells/mL. **Do not allow the cell concentration to exceed  $1 \times 10^6$  cells/mL.**

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** A Weiss

**REFERENCIAS:** Ohashi PS, et al. Reconstitution of an active surface T3/T-cell antigen receptor by DNA transfer. *Nature* 316: 606-609, 1985. PubMed: [4033759](#)

Weiss A, Stobo JD. Requirement for the coexpression of T3 and the T cell antigen receptor on a malignant human T cell line. *J. Exp. Med.* 160: 1284-1299, 1984. PubMed: [6208306](#)

Schneider U, et al. Characterization of EBV-genome negative "null" and "T" cell lines derived from children with acute lymphoblastic leukemia and leukemic transformed non-Hodgkin lymphoma. *Int. J. Cancer* 19: 621-626, 1977. PubMed: [68013](#)

Ronald Wange, personal communication

**COMENTARIOS:** acute T cell leukemia, male. The J.RT3-T3.5 cell line is a derivative mutant of the Jurkat leukemia cell line.

The Jurkat cell line was established from the peripheral blood of a 14 year old boy by Schneider et al., and was originally designated JM.

The line was produced by treatment with ethylmethanesulfonate and negative selection with OKT3 monoclonal antibody.

This is a mutant line derived from the E6-1 clone of Jurkat (ATCC TIB 152) that lacks the beta chain of the T cell antigen receptor.

Clinical Data

male

The Jurkat cell line was established from the peripheral blood of a 14 year old boy by Schneider et al.

J.RT3-T3.5 cells lack the beta chain of the T cell antigen receptor.

The cells do not express either CD3 or the T cell receptor alpha/beta heterodimer on the surface.

The cells may be useful for transfection studies involving the T cell receptor beta chain gene.

### **J774.2**

**REFERENCIA Nº: ECACC Nº: 85011428** (lote CB No 1703) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse BALB/c monocyte macrophage.

**MORFOLOGÍA** Semi-adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** Not specified

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 3-9x10<sup>6</sup> cells/ml; 5% CO<sub>2</sub>; 37°C. Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10<sup>4</sup> células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Prof H Harris/Dr R Sutherland, Sir William Dunn School of Pathology, Oxford

**REFERENCIAS:** J Immunol 1975;114:898; Cancer Research 1977;37:546

Biochem J; 1996 Aug 15: 318 ( Pt 1): 173-7

**COMENTARIOS:** Recloned from J774.1 original ascites and solid tumour. Produces IL-1.

### **JEG-3**

**REFERENCIA Nº: ECACC Nº: 92120308** (lote No CB2572) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** Human choriocarcinoma

**MORFOLOGÍA:** Human, Placenta, Epithelial, Adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 1mM Sodium Pyruvate (NaP) + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:** 142

**CARIOTIPO:** modal no. 71

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at  $1-3 \times 10^4$  cells/cm<sup>2</sup> using 0.25% trypsin, 5% CO<sub>2</sub>; 37°C. Vacuolisation will occur at confluency.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

ACDP Guidance: [Biological agents: Managing the risks in laboratories and healthcare premises.](#)

**DEPOSITOR:** Obtained from ATCC

**PATENTES:** None specified by Depositor

**REFERENCIAS:** Kohler PO, Bridson WE 1971 Isolation of hormone-producing clonal lines of human choriocarcinoma. J Clin Endocrinol Metab.; 32(5):683-7. [PMID: 5103722](#).

Pattillo RA, Gey GO. 1968 The establishment of a cell line of human hormone-synthesizing trophoblastic cells in vitro. Cancer Res. 28(7):1231-6 [PMID: 4299001](#)

**COMENTARIOS:** One of 6 clones derived from cells implanted into a hamster cheek pouch and then propagated on irradiated feeder layers of human fibroblasts. Cell line releases chorionic gonadotrophin and somatomammotrophin and progesterone. It is also able to transform steroid precursors to oestrone and oestradiol. JEG3 has the same DNA profile as BeWo (ECACC catalogue number 86082803); it was established by serial cloning of BeWo (see Pattillo & Gey 1968 [PMID: 4299001](#)).

## **Jurkat E6.1**

**REFERENCIA N°: ECACC N°: 88042803 (lote CB No 02D065) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** Human leukaemic T cell lymphoblast

**MORFOLOGÍA** Suspensión

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 32

**CARIOTIPO:** Pseudodiploid, modal No 46

DNA PROFILE: STR-PCR Data:

Amelogenin:X,Y

CSF1PO:11,12

D13S317:8,12

D16S539:11

D5S818:9

D7S820:8,10

THO1:6,9.3

TPOX:8,10

vWA: 18

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 3-9x100,000 cells/ml; 5% CO<sub>2</sub>; 37°C. **MANTENER EL CULTIVO CON EL FRASCO EN POSICIÓN VERTICAL**

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Prof H Harris/Dr R Sutherland, Sir William Dunn School of Pathology, Oxford

**REFERENCIAS:** J Immunol 1984;133:123; J Immunol Meth 1993;157:203-207.

**COMENTARIOS:** Derived from Jurkat FHCRC. An IL-2 producing cell line, derived by incubating the cells at 41°C for 48 hours followed by a limiting dilution cloning over macrophages.

**KB (HeLa derivative)**

**REFERENCIA N°: ECACC N°: 94050408 (lote No: 00A010) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human cervix carcinoma

**MORFOLOGÍA:** Epithelial-like, adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** 2n = 46

**GENES EXPRESSED:** Keratin

**ISOENZYMES:** G6PD,A

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X

CSF1PO: 9,10

D13S317: 12,13.3

D16S539: 9,10

D5S818: 11,12

D7S820: 8,12

THO1: 7

TPOX: 8,12

vWA: 16,18

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:4 to 1:10 i.e. seeding at 1-2x10,000 cells/cm<sup>2</sup> using 0.05% trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** 2. Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from ATCC

**PATENT DEPOSITORY:** This material was deposited with the ATCC Patent Depository to fulfill U.S. or international patent requirements. This material may not have been produced or characterized by ATCC. As an International Depository Authority (IDA) for patent deposits, ATCC is required to complete viability testing only at time of initial deposit of patent material. Patent deposits are made available on behalf of the Depositor when the pertinent U.S. or international patent is issued, but material may not be used to infringe the patent claims.

**REFERENCIAS:** Proc Soc Exp Biol Med 1955;89:362; Science 1961;133:1559; Cancer Res 1958;18:1017; Proc Soc Exp Biol Med 1957;94:61; Proc Soc Exp Biol Med 1956;91:361

**COMENTARIOS:** Originally derived from an epidermoid carcinoma of the mouth of an adult male Caucasian. It was one of the early attempts to isolate and serially propagate a human cell line directly on glass as a monolayer. NB: This cell line contains HeLa marker chromosomes and expresses type A G6PD. For further information see Nature 1976;259:211; In Vitro 1978;14:469.

This cell line was found to be indistinguishable from HeLa by STR PCR DNA profiling. Therefore, the cell line should be considered as derived from HeLa. Ethnicity: Black  
This cell line is a suitable transfection host.

The cells are positive for keratin by immunoperoxidase staining. KB cells have been reported to contain human papillomavirus 18 (HPV-18) sequences.

**NOTE:** Cells of this line contain HeLa marker chromosomes, and were derived via HeLa contamination

### Technical information

ATCC Technical Services does not have technical information on patent deposits that are not produced or characterized by ATCC. Additional information can be found in the corresponding patent available from the patent holder or with the U.S. and/or international patent office.

### L-132

**REFERENCIA N°: ATCC N°: CCL-5 (lote NoF-10240) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human

**MORFOLOGÍA** epitelial, Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%

NUMERO DE PASE:

**CARIOTIPO:**

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 9,10  
D13S317: 12,13.3  
D16S539: 9,10  
D5S818: 11,12  
D7S820: 8,12  
TH01: 7  
TPOX: 8,12

vWA: 16,18  
D3S1358: 15,18  
D21S11: 27,28  
D18S51: 16  
Penta\_E: 7,17  
Penta\_D: 8,15  
D8S1179: 12,13  
FGA: 18,21  
D19S433: 13,14  
D2S1338: 17

**GENES EXPRESSED:** keratin

**ISOENZYMES:** G6PD, A

**PROCEDIMIENTO DE SUBCULTIVO:** A subcultivation ratio of 1:2 to 1:8 is recommended

**Medium Renewal:** Twice per week

Remove medium, add fresh 0.25% trypsin solution for 1 to 3 minutes. Remove trypsin and let culture sit at room temperature for 10 to 15 minutes. Add fresh medium, aspirate and dispense into new flasks.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** EV Davis

#### REFERENCIAS:

**COMENTARIOS:** This line was originally thought to be derived from embryonic lung tissue, but was subsequently found, based on isoenzyme analysis, HeLa marker chromosomes, and DNA fingerprinting, to have been established via HeLa cell contamination.

The cells are positive for keratin by immunoperoxidase staining.

**L243**

**REFERENCIA Nº: ATCC Nº: HB-55** (lote No 30 982049) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Mus musculus* (B cell); *Mus musculus* (myeloma), mouse (B cell); mouse (myeloma); b lymphocyte

**MORFOLOGÍA:** Hybridoma; Lymphoblast-like; Suspension

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC Hybri-Care Medium, Catalog No. 46-X. Hybri-Care Medium is supplied as a powder and should be reconstituted in 1 L cell culture grade water. To make the complete growth medium, add the following components to the base medium:

- fetal bovine serum to a final concentration of 10%
- 1.5 g/L sodium bicarbonate for use with 5% CO<sub>2</sub> in air atmosphere.

NUMERO DE PASE:

**CARIOTIPO:**

**ANTIGENIC DETERMINANTS:** I-A, human

**GENES EXPRESSED:** immunoglobulin, monoclonal antibody, against human Ia

**ISOTYPE:** IgG2a

**DNA PROFILE: STR-PCR Data:**

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by addition or replacement of fresh medium. Start cultures at  $2 \times 10^5$  cells/mL and maintain between  $1 \times 10^5$  and  $1 \times 10^6$  cells/mL.

**Medium Renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** LA Lampson; Hybridoma Bank (HB)

**REFERENCIAS:** Lampson LA, Levy R. Two populations of Ia-like molecules on a human B cell line. J. Immunol. 125: 293-299, 1980. PubMed: [6966655](#)

Nepom BS, et al. Critical contribution of beta chain residue 57 in peptide binding ability of both HLA-DR and -DQ molecules. Proc. Natl. Acad. Sci. USA 93: 7202-7206, 1996. PubMed: [8692969](#)

**COMENTARIOS:** The antibody reacts with a non-polymorphic Ia like antigen on human cells. Animals were immunized with RPMI 8866 cells. Spleen cells were fused with NS-1 myeloma cells.

An antibody with similar specificity but not cytotoxic is available ([ATCC HB-171](#), L203). Tested and found negative for ectromelia virus (mousepox).

**L6.C10**

**REFERENCIA N°: ECACC N°: 92102118** (lote CB. N° 2649) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución

con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Rat skeletal muscle myoblast

**MORFOLOGÍA** Myoblast

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split semi-confluent cultures to a seeding density of 1.5-2x1000 cells/cm<sup>2</sup> using trypsin/EDTA; 5%CO<sub>2</sub>,37°C.Cells fuse on reaching confluence, producing myotubes. To prevent fusión maintain the cultures subconfluent and reclone every 6-8 weeks.

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:**

**REFERENCIAS:** Proc Natl Acad Sci, USA 1968; 61:477  
Dev Biol 1970;23:1

**L929**

**REFERENCIA N°: ECACC N°: 85011425 (lote 1737) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Tejido conectivo de ratón c34/An

**MEDIO DE CULTIVO:** DMEM + 2 mM de glutamina + 10% de suero bovino fetal.

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1

**MORFOLOGÍA:** Fibroblasto

**REFERENCIAS:** J. Nat. Cancer Inst. 1943; 4:165

**COMENTARIOS:** Subclon de una línea parental cepa L, establecida por EARLE en 1940. Fué una de las primeras líneas que se establecieron como cultivo continuo. La cepa L derivaba de tejido areolar subcutáneo normal y tejido adiposo de un ratón C34/An, macho de 100 días. Las células son APRT+ y HPRT+. Tienen aplicación en estudios virales. Permisivo para PRV y VSV (Indiana). Susceptibilidad a otros virus según el medio de cultivo empleado, por ej. HSV

**LL/2(LLc1)**

**REFERENCIA N°: ECACC N°:90020104 (lote No05J028) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse C57BL Lewis lung carcinoma

**MORFOLOGÍA** Adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 11

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:4 to 1:6 i.e. seeding at  $2-4 \times 10^4$  cells/cm<sup>2</sup> using mechanical technique (aspiration); 5% CO<sub>2</sub>; 37°C. Cells detach as aggregates and are therefore difficult to count.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:**

**REFERENCIAS:** Cancer Letters 1980;11:63

**COMENTARIOS:** Derived from the lung of a C57BL mouse implanted with a primary Lewis Lung carcinoma. The cells can be used as a model for metastasis and for studying the effects of chemotherapeutic agents

**LNCap clone FGC**

**REFERENCIA N°: ECACC N°: 89110211 (Lote 08G024) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian prostate carcinoma

**MORFOLOGÍA:** Epithelial-like

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamina + 1.0 mM piruvato sódico + 10% suero bovino fetal (FBS).

**NUMERO DE PASE:** 15

**CARIOTIPO:** Pseudodiploid male; seven marker chromosomes, modal number 46, range 33 to 91

**PRODUCTOS:** Prostate acid phosphatase, prostate specific antigen

**RECEPTORES:** Androgen, estrogen

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Las células crecen lentamente en clusters y pueden disgregarse pipeteando varias veces. Después del subcultivo, pueden tardar unas 48 horas en volver a adherirse. En ese tiempo, no deben tocarse. El medio se cambia 2 veces a la semana.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** Cancer Genet Cytogenet 1984; 11:399; Cancer Res 1983; 43:1809; Cancer Res 1997; 57:3339; J Biol Chem 1996; 271:13228 Murphy, G.P.,ed.,Models for prostate cancer.37 New York:Liss;1980:pp115-132 Gibas Z et al. A high resolution study of chromosome changes in a human prostatic carcinoma cell line (LNCap).Cancer Genet. Cytogenet. 11:399-404,1984 Horoszewicz JS et al. LNCap model of human prostatic carcinoma. Cancer Res. 43:1809-1818, 1983 Hu SX et al. Development of an adenovirus vector with tetracycline-regulatable human tumor necrosis factor alpha gene expression. Cancer Re. 57:3339-3343,1997 Boffa LC et al. Invasion of the CAG triplet repeats by a complementary peptide nucleic acid inhibits transcription of the androgen receptor and TATA-binding protein genes and correlates with refolding of an active nucleosome containing a unique AR gene sequence. J.Biol. Chem. 271:13228-13233, 1996

**COMENTARIOS:** Derived from a metastasis at the left supraclavicular lymph node of a 50 year old patient with a confirmed diagnosis of metastatic prostate carcinoma. Growth and acid phosphatase production is affected by 5-alpha-dihydrotestosterone. They do not form a uniform monolayer and attach only lightly to the substrate. When shipped, cells detach from flask and can either be incubated 24-48 hours to allow attachment or be collected by centrifugation (150xg, 15 minutes) and reseeded.

**LTPA**

**REFERENCIA Nº: ATCC Nº: CRL-2389** (lote No 70006835) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** **Mus musculus (mouse)**, 12 month old, female, strain LT/Sv páncreas, adenocarcinoma

**MORFOLOGÍA** epitelial, adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:**

**CARIOTIPO:** Number of cells examined = 59; Modal Chromosome Number = 75 with a range of 65 to 79; Polyploidy Rate = 22%

**DNA PROFILE:** STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used in this protocol are for 75 cm<sup>2</sup> flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin-0.53mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
**Note:** To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

A subcultivation ratio of 1:4 to 1:6 is recommended

**Medium Renewal:** Every 2 to 3 days

**Note:** For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 10 in *Culture of Animal Cells, a manual of Basic Technique* by R. Ian Freshney, 3rd edition, published by Alan R. Liss, N.Y., 1994.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** EH Leiter

**REFERENCIAS:** Leiter EH, et al. An epithelial cell line with chronic polyoma infection established from a spontaneous mouse pancreatic adenocarcinoma. Cancer Res. 38: 969-977, 1978.

PubMed: [205354](#)

Hay, R. J., Caputo, J. L., and Macy, M. L., Eds. (1992), ATCC Quality Control Methods for Cell Lines. 2nd edition, Published by ATCC.

Caputo, J. L., Biosafety procedures in cell culture. J. Tissue Culture Methods 11:223-227, 1988.

Fleming, D.O., Richardson, J. H., Tulis, J.J. and Vesley, D., (1995) Laboratory Safety: Principles and Practice. Second edition, ASM press, Washington, DC.

**COMENTARIOS:** LTPA is an epithelial cell line derived in 1975 by Edward H. Leiter at The Jackson Laboratory, Bar Harbor, Maine from a spontaneous pancreatic adenocarcinoma taken from a 12 month old female Lt/Sv mouse.

A defective Polyoma virus infection of a pancreatic duct cell or its precursor appears to represent the neoplastic transforming event.

LTPA cells carry a persistent Polyoma infection.

When injected subcutaneously into Swiss nu/nu mice, LTPA cells formed ductular structures, which were destroyed by inflammatory reactions within 3 weeks.

A culture submitted to the ATCC in May of 1998 was found to be contaminated with mycoplasma and progeny were cured by a 21-day treatment with BM Cycline.

The cells were assayed for mycoplasma, by the Hoechst stain, PCR and the standard culture test, after a six-week period following treatment. All tests were negative.

### **LUDLU-1**

**REFERENCIA Nº: ECACC Nº:92012463** (lote No16C034) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian lung squamous cell carcinoma

**MORFOLOGÍA:** Epithelial, Adherent,

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:** 12

**CARIOTIPO:** Not specified

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 11  
D13S317: 12  
D16S539: 13,14  
D5S818: 12  
D7S820: 10,12  
THO1: 6  
TPOX: 8,11  
vWA: 17,19

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:5 to 1:10 i.e. seeding at  $5 \times 10^4$ - $2 \times 10^6$  cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA, 5% CO<sub>2</sub>; 37°C

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Dr P Rabbitts, MRC, Clinical Oncology and Radiotherapeutics Unit, Cambridge

**PATENTE:** None specified by Depositor

**REFERENCIAS:** Barretina J, et al., 2012 The Cancer Cell Line Encyclopedia enables predictive modelling of anticancer drug sensitivity. Nature. 483(7391):603-7. [PMID: 22460905](#)

Genes, Chromosomes and Cancer 1989;1:95 (Patient No 1 in the paper)

**COMENTARIOS:** Derived from a lung squamous cell carcinoma of a 72 year old Caucasian male. The B-lymphoblastoid cell line AGLCL (ECACC catalogue no. 89120566) was derived from the same patient. Cells grow as large swollen aggregates, which will detach and eventually grow in suspension. This line is EBV transformed.

### **MC3T3-E1**

**REFERENCIA N°: ECACC N°: 99072810**(lote No10F002) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse C57BL/6 calvaria

**MORFOLOGÍA** Similar a fibroblasto. Adherente

**MEDIO DE CULTIVO:** MEM alpha + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 10

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) seeding at  $0.5 \times 10^5$  cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA 5% CO<sub>2</sub> 37°C. Never allow the culture to become fully confluent

**NIVEL DE BIOSEGURIDAD:** 2. Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

ACDP Guidance: [Biological agents: Managing the risks in laboratories and healthcare premises.](#)

Hyperlinks to MSDS documents:

[Frozen cell cultures Material Safety Data Sheet](#)

[Growing cell cultures Material Safety Data Sheet](#)

[Nucleic acids derived from cell cultures Material Safety Data Sheet](#)

**DEPOSITOR:** Obtained from Riken Cell Bank, Japan

**REFERENCIAS:** J Biol Chem 1994 269 9392, Biochem Biophys Res Commun 1991 175:577, J Biol Chem 1991 266:21044, J C

**COMENTARIOS** The osteoblastic cell line MC3T3-E1 has been established from a C57BL/6 mouse calvaria and selected on the basis of high alkaline phosphatase (ALP) activity in the resting state. Cells have the capacity to differentiate into osteoblasts and osteocytes and have been demonstrated to form calcified bone tissue in vitro.

Mineral deposits have been identified as hydroxyapatite. Expression of basic fibroblast growth factor (bFGF) mRNA and protein has been shown to be regulated by treatment with TGF beta and bFGF. Prostaglandin F<sub>2a</sub> has been reported to stimulate DNA synthesis and proliferation by up-regulation of insulin-like growth factor I receptors. MC3T3-E1 secrete collagen and express murine leukemia inhibitory factor (mLIF) in RNA.

Contact inhibition is the natural process of arresting cell growth when cells come into contact with each other. It is not possible to be sure how the loss of contact inhibition may affect other characteristics of the cell line.

This cell line catalogue number continues to be a popular choice. The key consideration is whether the characteristic of contact inhibition is required for the work the cell line is to be used for. For example, it is required when testing the affects of expression of potential oncogenes where the induction of the loss of contact inhibition is being measured, whereas it is of less significance when using the cell line to express recombinant proteins for production and purification.

**MCF7**

**REFERENCIA N°: ECACC N°: 86012803 (lote CB2705) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Adenocarcinoma humano de mama

**MORFOLOGÍA:** Epitelial y adherente

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamina + 1% NEAA + 10% Suero bovino fetal o RPMI + 2mM glutamina + 10% Suero bovino fetal

**NUMERO DE PASE:**

**CARIOTIPO:** 2n=46

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** J. Nat. Cancer Inst. 1973; 51:1409.

**COMENTARIOS:** Establecida desde una efusión pleural de una mujer caucasiana de 69 años. Las células exhiben algunas propiedades de epitelio mamario diferenciado incluyendo la síntesis de estradiol. Las células pueden llevar virus tipo B o C por lo que hay que trabajar con cuidado. Aplicaciones que suelen tener son estudios de tumorigenicidad y de virus tipo B y C

### **MCF 10A**

**REFERENCIA N°: ATCC N°: CRL- 10317 (lote 3275189) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Glándula mamaria de origen humano

**MORFOLOGÍA:** Epitelial y adherente

**MEDIO DE CULTIVO:** MEGM (Mammary Epithelial Growth Medium, serum-free) de Clonetics (MEBM CC-3151 + MEGM single quots CC-4136). La ATCC no usa la anfotericina-gentamicina. Este medio va suplementado con + 100 ng/ml toxina colérica

NUMERO DE PASE: 115

**CARIOTIPO:** Aneupliode, mujer ,humano; 48,XX,+8,+16,3p-,6p+,9p+

**PROCEDIMIENTO DE SUBCULTIVO:** Cambiar el medio de cultivo 2 veces por semana. Dividir los cultivos confluentes sembrando a 1:3 hasta 1:4 siguiendo el siguiente protocolo: quitar el medio de cultivo y lavar la monocapa con PBS. Añadir 3 ml de 0.05% Tripsina-0.53 mM EDTA e incubar a 37°C durante 15 minutos. Para neutralizar la tripsina, añadir 3 ml de solución de 10 mg/ml soybean trypsin inhibitor en medio libre de suero( MEGM). Centrifugar la solución celular a 125 g durante 5-10 minutos. Tirar el sobrenadante y resuspender las células en su medio de cultivo completo. Se incuban a 37 C y 5% de CO2

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** Soule H and McGrath CM. Immortal human mammary epithelial cell lines. U.S. Pat. 5,026,637 dated June 25, 1991. Referencias adicionales están disponibles en la página de la ATCC, [www.atcc.org](http://www.atcc.org)

**COMENTARIOS:** No se conoce ningún agente asociado a esta línea que cause enfermedad en humanos adultos. Manipular como un agente biológico bajo niveles de bioseguridad 1. Estas células no han sido testadas para el virus de la hepatitis B ni el virus de la inmunodeficiencia humana. La forma de trabajo puede consultarla en Laboratory Safety: Principles and Practice y en la publicación del Gobierno de U.S. Biosafety in Microbiological and Biomedical Laboratories. El texto completo se puede consultar en [www.cdc.gov/od/ohs/biosfty/bmbl4//bmbl4toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmbl4//bmbl4toc.htm)

Esta línea celular es una línea epitelial no tumorigénica. Fue producida por un cultivo a largo tiempo en un medio libre de suero con una concentración baja de Ca\*\*

### **MDA-MB-231**

**REFERENCIA N°: ATCC N°: HTB-26 SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

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Purchaser acknowledges and agrees that ATCC will send Purchaser’s contact information and order details to Institution’s Office of Technology Commercialization.

**DESCRIPCION CELULAR:** Adenocarcinoma de mama de mujer de raza caucasiana de 51 años

**MORFOLOGÍA** Epitelial adherente

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Leibovitz's L-15 Medium, Catalog No. 30-2008. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

(Note: The L-15 medium formulation was devised for use in a free gas exchange with atmospheric air. A CO<sub>2</sub> and air mixture is detrimental to cells when using this medium for cultivation)

**CARIOTIPO:** The cell line is aneuploid female (modal number = 64, range = 52 to 68), with chromosome counts in the near-triploid range. Normal chromosomes N8 and N15 were absent. Eleven stable rearranged marker chromosomes are noted as well as unassignable chromosomes in addition to the majority of autosomes that are trisomic. Many of the marker chromosomes are identical to those shown in the karyotype reported by K.L. Satya-Prakash, et al.

#### TR Profile

Amelogenin:

X

CSF1PO:

12,13

D13S317: 13

D16S539: 12

D5S818: 12

D7S820: 8,9

THO1: 7,9.3

TPOX: 8,9

vWA: 15,18

**ISOENZYMES:**

AK-1, 1  
ES-D, 1  
G6PD, B  
GLO-I, 2  
Me-2, 1-2  
PGM1, 1-2  
PGM3, 1

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1:6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** R Cailleau

**REFERENCIAS:** Brinkley BR , et al. Variations in cell form and cytoskeleton in human breast carcinoma cells in vitro. *Cancer Res.* 40: 3118-3129, 1980.  
Cruciger Q, et al. Morphological, biochemical and chromosomal characterization of breast tumor lines from pleural effusions. *In Vitro* 12:331,1976.  
Siciliano MJ , et al. Mutually exclusive genetic signatures of human breast tumor cell lines with a common chromosomal marker. *Cancer Res.* 39: 919-922, 1979.  
Cailleau R , et al. Breast tumor cell lines from pleural effusions. *J. Natl. Cancer Inst.*53:661-674,1974.  
Cailleau R , et al. Long-term human breast carcinoma cell lines of metastatic origin: preliminary characterization. *In Vitro* 14: 911-915, 1978.  
Bates SE , et al. Expression of the transforming growth factor-alpha/epidermal growth factor receptor pathway in normal human breast epithelial cells. *Endocrinology*126:596-607,1990.  
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Huguet EL , et al. Differential expression of human Wnt genes 2, 3, 4, and 7B in human breast cell lines and normal and disease states of human breast tissue. *Cancer Res.*54:2615-2621,1994.  
Satya-Prakash KL , et al. Cytogenetic analysis on eight human breast tumor cell lines: high frequencies of 1q, 11q and HeLa-like marker chromosomes. *Cancer Genet.Cytogenet.*3:61-73,1981.  
Katayose Y , et al. Promoting apoptosis: a novel activity associated with the Cyclin-dependent kinase inhibitor p27. *Cancer Res.* 57: 5441-5445, 1997.  
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Sheng S , et al. Maspin acts at the cell membrane to inhibit invasion and motility of mammary and prostatic cancer cells. *Proc. Natl. Acad. Sci. USA* 93: 11669-11674,1996.  
De Vincenzo R , et al. Antiproliferative activity of colchicine analogues on MDR-positive and MDR-negative human cancer cell lines. *Anticancer Drug Des.* 13: 19-33,1998.  
Soker S , et al. Characterization of novel vascular endothelial growth factor (VEGF) receptors on

tumor cells that bind VEGF165 via its exon 7-encoded domain. J. Biol. Chem. 271: 5761-5767, 1996

**COMENTARIOS:** Expresa receptoras para TGF alfa. Produce nódulos en ratones.

### **MDA-MB-435S**

**REFERENCIA N°: ATCC N°:HTB-129** (lote No9000002) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human cells; melanocyte; Melanoma; Previously described as ductal carcinoma

**MORFOLOGÍA:** melanocyte, spindle shaped; Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Leibovitz's L-15 Medium, Catalog No. 30-2008. To make the complete growth medium, add the following components to the base medium:

- 0.01mg/ml bovine insulin
- 0.01mg/ml glutathione
- fetal bovine serum to a final concentration of 10%

**NUMERO DE PASE:**

#### **CARIOTIPO:**

modal number = 56; range = 55 to 62  
The cell line is aneuploid human female (XX), with most chromosome counts in the 55 to 60 range. Normal chromosomes N6, N11, and N22 were absent, while chromosomes N7, N13, N18 and N21 were single. Most of the remainder of normal chromosomes were usually paired, but chromosome N2 was triple. Nineteen marker chromosomes were identified, with most of them formed from structural alterations of the missing copies of the normal chromosomes. Six of these markers involve regions of chromosome N7, while three are recognized as derivatives of chromosome N6. Regions of a third copy of the normal and paired chromosomes N3, N15, N17, N20 are noted in markers M1, M2, M15, and M5, respectively.

**ANTIGEN EXPRESSION:**

**GENES EXPRESSED:** tubulin; actin

**ISOTYPE:**

**ISOENZYMES:**

AK-1, 1

ES-D, 1

G6PD, B  
GLO-I, 2  
PGM1, 2  
PGM3, 1

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X  
CSF1PO: 11  
D13S317: 12  
D16S539: 13  
D5S818: 12  
D7S820: 8,10  
TH01: 6,7  
TPOX: 8,11  
vWA: 16,18  
D3S1358: 14  
D21S11: 30  
D18S51: 13  
Penta\_E: 10,12  
Penta\_D: 9,11  
D8S1179: 13  
FGA: 21  
D19S433: 14,15  
D2S1338: 19,24

**PROCEDIMIENTO DE SUBCULTIVO:** Remove medium, add fresh 0.25% trypsin - 0.53 mM EDTA, rinse and remove. Place flask at room temperature (or incubated at 37°C) for approximately 10 minutes or until the cells detach. Add fresh medium, aspirate and dispense into new flasks.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:6 is recommended

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Human Tumor Cell Bank

**REFERENCIAS:** Brinkley BR, et al. Variations in cell form and cytoskeleton in human breast carcinoma cells in vitro. Cancer Res. 40: 3118-3129, 1980. PubMed: [7000337](#)

Siciliano MJ, et al. Mutually exclusive genetic signatures of human breast tumor cell lines with a common chromosomal marker. Cancer Res. 39: 919-922, 1979. PubMed: [427779](#)

Cailleau R, et al. Long-term human breast carcinoma cell lines of metastatic origin: preliminary characterization. In Vitro 14: 911-915, 1978. PubMed: [730202](#)

Sheng S, et al. Maspin acts at the cell membrane to inhibit invasion and motility of mammary and prostatic cancer cells. Proc. Natl. Acad. Sci. USA 93: 11669-11674, 1996. PubMed: [8876194](#)

Zhu X, et al. Cell cycle-dependent modulation of telomerase activity in tumor cells. Proc. Natl. Acad. Sci. USA 93: 6091-6095, 1996. PubMed: [8650224](#)

**COMENTARIOS:** This cell line was originally described as a spindle shaped variant of the parental MDA-MB-435 strain isolated in 1976 by R. Cailleau, et al. from the pleural effusion of a 31 year old female with metastatic, ductal adenocarcinoma of the breast.

However, recent studies have generated questions about the origin of the parent cell line, MDA-MB-435, and by extension HTB-129. Gene expression analysis of the cells produced microarrays in which MDA-MB-435 clustered with cell lines of melanoma origin.

This cell line was originally described as a spindle shaped variant of the parental MDA-MB-435 strain isolated in 1976 by R. Cailleau, et al. from the pleural effusion of a 31 year old female with metastatic, ductal adenocarcinoma of the breast.

However, recent studies have generated questions about the origin of the parent cell line, MDA-MB-435, and by extension HTB-129. Gene expression analysis of the cells produced microarrays in which MDA-MB-435 clustered with cell lines of melanoma origin instead of breast [PubMed ID: 10700174, PubMed ID: 15150101, PubMed ID: 15679052].

Additional studies have since corroborated a melanocyte origin of MDA-MB-435, to which ATCC has responded by pursuing its own investigation into the identity of this cell line. The cell line to which MDA-MB-435 is reported to have been cross-contaminated with is the M14 melanoma line [PubMed ID: 12354931 and PubMed ID: 17004106].

**Derivatives of HTB-129 with identities in question:**

M4A4, [ATCC CRL-2914](#)

M4A4 GFP, [ATCC CRL-2915](#)

M4A4 LM3-2 GFP, [ATCC CRL-2916](#)

M4A4 LM3-4 CL 16 GFP, [ATCC CRL-2917](#)

NM2C5, [ATCC CRL-2918](#)

NM2C5 GFP, [ATCC CRL-2919](#)

**MDA-MB-468**

**REFERENCIA Nº: ATCC Nº: HTB-132 SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**



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**DESCRIPCION CELULAR:** mammary gland/breast; derived from metastatic site: pleural effusion

**MORFOLOGÍA:** epitelial, adherente

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Leibovitz's L-15 Medium, Catalog No. 30-2008. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

(Note: The L-15 medium formulation was devised for use in a free gas exchange with atmospheric air. A CO<sub>2</sub> and air mixture is detrimental to cells when using this medium for cultivation)

RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).37°C, 5% CO<sub>2</sub>.

**NUMERO DE PASE:**

**CARIOTIPO:** modal number = 64; range = 60 to 67.

The cell line is aneuploid human, presumably female (X, abnormal X) with most chromosome counts in the hypotriploid range.; Normal chromosomes X, N2, N3, N7, N8, N10, and N22 are clearly under-represented due to their involvement in the formation of the many marker (19) chromosomes present in this cell line.; A normal chromosome N1 (or two) is identified in each karyotype, but, in addition, regions of chromosome N1 are also present in five different marker chromosomes.; Variation is evident in the normal and marker chromosome copy number from karyotype to karyotype.

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X

CSF1PO: 12  
D13S317: 12  
D16S539: 9  
D5S818: 12  
D7S820: 8  
THO1: 7  
TPOX: 8,9  
vWA: 18

**ISOENZIMAS:**

AK-1, 1  
ES-D, 1  
G6PD, A  
GLO-I, 1-2  
Me-2, 1-2  
PGM1, 1  
PGM3, 2

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes. Corning® T-75 flasks (catalog #430641) are recommended for subculturing this product.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:2 to 1:4 is recommended

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD: 1**

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** R Cailleau

**REFERENCIAS:** Brinkley BR, et al. Variations in cell form and cytoskeleton in human breast carcinoma cells in vitro. *Cancer Res.* 40: 3118-3129, 1980. PubMed: [7000337](#)  
Siciliano MJ, et al. Mutually exclusive genetic signatures of human breast tumor cell lines with a common chromosomal marker. *Cancer Res.* 39: 919-922, 1979. PubMed: [427779](#)  
Pathak S, et al. A human breast adenocarcinoma with chromosome and isoenzyme markers similar to those of the HeLa line. *J. Natl. Cancer Inst.* 62: 263-271, 1979. PubMed: [283262](#)  
Cailleau R, et al. Long-term human breast carcinoma cell lines of metastatic origin: preliminary characterization. *In Vitro* 14: 911-915, 1978. PubMed: [730202](#)

Nigro JM, et al. Mutations in the p53 gene occur in diverse human tumour types. Nature 342: 705-707, 1989. PubMed: [2531845](#)

Bates SE, et al. Expression of the transforming growth factor-alpha/epidermal growth factor receptor pathway in normal human breast epithelial cells. Endocrinology 126: 596-607, 1990. PubMed: [2294006](#)

Avila MA, et al. Quercetin mediates the down-regulation of mutant p53 in the human breast cancer cell line MDA-MB468. Cancer Res. 54: 2424-2428, 1994. PubMed: [8162591](#)

Littlewood-Evans AJ, et al. The osteoclast-associated protease cathepsin K is expressed in human breast carcinoma. Cancer Res. 57: 5386-5390, 1997. PubMed: [9393764](#)

Zamora-Leon SP, et al. Expression of the fructose transporter GLUT5 in human breast cancer. Proc. Natl. Acad. Sci. USA 93: 1847-1852, 1996. PubMed: [8700847](#)

Tumors developed within 21 days at 100% frequency (5/5).

**COMENTARIOS:** The MDA-MB-468 cell line was isolated in 1977 by R. Cailleau, et al., from a pleural effusion of a 51-year-old Black female patient with metastatic adenocarcinoma of the breast..

Although the tissue donor was heterozygous for the G6PD alleles, the cell line consistently showed only the G6PD A phenotype. There is a G -> A mutation in codon 273 of the p53 gene resulting in an Arg -> His substitution. EGF receptor is present at  $1 \times 10^6$  per cell

## **MDCK**

**REFERENCIA N°: ECACC N°: 85011435 (lote CB No1926) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Canine cocker spaniel kidney

**MORFOLOGÍA** epitelial, adherente

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**  $2n = 78$

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:10 i.e. seeding at  $1-3 \times 10^4$  cells/cm<sup>2</sup> using 0.05% trypsin/EDTA; 5% CO<sub>2</sub>; 37°C. Cells attach firmly and require at least 2 PBS washes prior to addition of trypsin/EDTA.

**NIVEL DE BIOSEGURIDAD:** 2 Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens

(UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

ACDP Guidance: **Biological agents: Managing the risks in laboratories and healthcare premises.**

**DEPOSITOR:** Dr D Tyrrell, MRC Common Cold Unit, Salisbury

## **REFERENCIAS:**

Proc Soc Exp Biol Med 1958;98:574; Proc Soc Exp Biol Med 1966;122:931

1)Biochem J; 1996 Nov 1: 319 ( Pt 3): 909-12"The lysosomal Ca<sup>2+</sup> pool in MDCK cells can be released by ins(1,4,5)P<sub>3</sub>-dependent hormones or thapsigargin but does not activate store-operated Ca<sup>2+</sup> entry."2) J Eukaryot Microbiol; 1996 Sep-Oct: 43(5): 87S"In vitro evaluation of anticryptosporidial agents using MDCK cell culture and chemiluminescence immunoassay."3)Cell Biol Int; 1996 Jul: 20(7): 489-99"Disruption of cell-cell adhesion in the presence of sodium butyrate activates expression of the 92 kDa type IV collagenase in MDCK cells."4)Am J Physiol; 1996 Oct: 271(4 Pt 1): C1064-72"Role of PLA<sub>2</sub>, PLC, and PLD in bradykinin-induced release of arachidonic acid in MDCK cells."5) Am J Physiol; 1996 Sep: 271(3 Pt 2): F610-8"Heterogeneity of P<sub>2u</sub>- and P<sub>2y</sub>-purinergic receptor regulation of phospholipases in MDCK cells."6)Am J Physiol; 1996 Jul: 271(1 Pt 1): C226-34"Apical membrane permeability of MDCK cells."7)Am J Physiol; 1996 Jan: 270(1 Pt 2): F220-8"Expression of proximal tubular Na-Pi and Na-SO<sub>4</sub> cotransporters in MDCK and LLC-PK1 cells by transfection."8)Am J Physiol; 1996 Jan: 270(1 Pt 1): G176-83"Polarized GP2 secretion in MDCK cells via GPI targeting and apical membrane-restricted proteolysis."9)Am J Physiol; 1996 Jan: 270(1 Pt 1): C200-7"Betaine and inositol reduce MDCK cell glycerophosphocholine by stimulating its degradation."10)J Membr Biol; 1996 Sep: 153(1): 1-11"Hydraulic properties of MDCK cell epithelium."11)J Membr Biol; 1996 Jan: 149(1): 49-55"Transfection alters ion transport in MDCK cells."12)J Nihon Univ Sch Dent; 1995 Dec: 37(4): 201-8"The influence of scattering on temporo-regional proliferation in the cultured Madin-Darby canine kidney (MDCK) cells."13)J Gen Virol; 1996 Oct: 77 ( Pt 10): 2507-14"Virus entry into a polarized epithelial cell line (MDCK): similarities and dissimilarities between influenza C virus and bovine oronavirus."14)Mol Biol Cell; 1996 Jul: 7(7): 1025-41"Mechanisms of integrin-mediated calcium signaling in MDCK cells: regulation of adhesion by IP<sub>3</sub>- and store-independent calcium influx."15)Am J Physiol; 1996 Mar: 270(3 Pt 2): F419-24"Hypertonic activation and recovery of system A amino acid transport in renal MDCK cells."16)Pflugers Arch; 1996 Aug: 432(4): 685-91"Characterization of hormone-stimulated Na<sup>+</sup> transport in a high-resistance clone of the MDCK cell line."17)J Membr Biol; 1995 Dec: 148(3): 223-32"Determination of the Na permeability of the tight junctions of MDCK cells by fluorescence microscopy."18)J Cell Biol; 1996 Oct: 135(1): 139-52"Apical and basolateral endosomes of MDCK cells are interconnected and contain a polarized sorting mechanism."19)J Cell Biochem; 1995 Dec: 59(4): 453-62"Cyclic-AMP deficient MDCK cells form tubules."20) Scanning Microsc; 1995 Jun: 9(2): 587-96"Alterations in MDCK and LLC-PK1 cells exposed to oxalate and calcium oxalate monohydrate crystals."21)C R Acad Sci III; 1996 Apr: 319(4): 277-87"Method of measurement of cadmium influx by fura-2 titration in MDCK cell evidenced. Fluorescence video-microscopy study"22)Pharmazie; 1996 May: 51(5): 341-5"Phonophoretic permeation of procaine hydrochloride through an MDCK cell monolayer"23)J Virol; 1996 Sep: 70(9): 6508-15"Transmembrane domain of influenza virus neuraminidase, a type II protein, possesses an apical sorting signal in polarized MDCK cells."24) Cell Calcium; 1996 Feb: 19(2): 157-65"The lysosomal compartment as intracellular calcium store in MDCK cells: a possible involvement in InsP<sub>3</sub>-mediated Ca<sup>2+</sup> release."25)J Cell Biol; 1996 Jun: 133(6): 1265-

76"Traffic, polarity, and detergent solubility of a glycosylphosphatidylinositol-anchored protein after LDL-deprivation of MDCK cells."26) Arch Virol; 1996: 141(5): 923-33"A variant of MDCK cell line which restricted growth of influenza viruses mainly through suppression of viral primary transcription."27) Int J Urol; 1996 Jan: 3(1): 23-6"Microlith formation in vitro by Madin Darby canine kidney (MDCK) cells."28) Biochem J; 1996 May 1: 315 ( Pt 3): 983-7"Tight connection between choline transport and phosphatidylcholine synthesis in MDCK cells."29) Am J Physiol; 1996 Mar: 270(3 Pt 1): C753-62"Polarity of TRH receptors in transfected MDCK cells is independent of endocytosis signals and G protein coupling."30) Biochim Biophys Acta; 1996 Apr 24: 1311(2): 93-101"The cytosolic glutathione S-transferase isoenzymes in the dog kidney cortex as compared with the corresponding MDCK renal cell line."31) EMBO J; 1996 Apr 1: 15(7): 1471-81"Reconstitution of transcytosis in SLO-permeabilized MDCK cells: existence of an NSF-dependent fusion mechanism with the apical surface of MDCK cells."32) Biophys J; 1995 Dec: 69(6): 2800-7"Impedance analysis of MDCK cells measured by electric cell-substrate impedance sensing."33) Cell Struct Funct; 1995 Oct: 20(5): 387-93"Effects of tyrosine phosphorylation on tight junctions in temperature-sensitive v-src-transfected MDCK cells."34) Chromosoma; 1996: 104(5): 321-31"Cell cycle related behavior of a chromosomal scaffold protein in MDCK epithelial cells."35) Kidney Int; 1995 Oct: 48(4): 1200-5"Properties and regulation of ion channels in MDCK cells."36) Biochem Soc Trans; 1995 Aug: 23(3): 535-8"The role of microtubules in apical and basolateral endocytosis in epithelial Madin-Darby canine kidney (MDCK) cells."37) Epithelial Cell Biol; 1995: 4(1): 17-24"Characterization of Na,K-ATPase isoform expression and activity in MDCK and Caco-2 epithelial cells."38) Antiviral Res; 1995 Aug: 27(4): 425-30"Inhibitory effect of bafilomycin A1, a specific inhibitor of vacuolar-type proton pump, on the growth of influenza A and B viruses in MDCK cells."39) Int J Biochem Cell Biol; 1995 Oct: 27(10): 1055-63"Hyperosmolality stimulates phospholipase A2 activity in rabbit renal medulla and in Madin-Darby canine kidney (MDCK) cells."40) Arch Toxicol; 1995: 69(6): 421-4"Influence of glucose on the toxicity of oxophenylarsine in MDCK cells."41) J Physiol (Lond); 1995 Aug 1: 486 ( Pt 3): 557-69"A highly calcium-selective cation current activated by intracellular calcium release in MDCK cells."42) J Cell Sci; 1995 Aug: 108 ( Pt 8): 2917-26"Phosphorylation of the tight junction protein cingulin and the effects of protein kinase inhibitors and activators in MDCK epithelial cells."43) J Cell Sci; 1995 Aug: 108 ( Pt 8): 2791-800"Galectin-3 expression and effects on cyst enlargement and tubulogenesis in kidney epithelial MDCK cells cultured in three-dimensional matrices in vitro."44) Fundam Appl Toxicol; 1995 Aug: 27(1): 1-8"Reversal of oxophenylarsine-induced inhibition of glucose uptake in MDCK cells"45) FEBS Lett; 1995 Oct 9: 373(2): 123-6"Phosphatase toward MAP kinase is regulated by osmolarity in Madin-Darby canine kidney (MDCK) cells."46) FEMS Microbiol Lett; 1995 Jul 15: 130(1): 45-9"An unstable small-colony variant of a noninvasive mutant of Salmonella typhimurium is highly invasive for MDCK cells."47) Biochim Biophys Acta; 1995 Sep 21: 1268(3): 325-8"Clusterin gene expression in apoptotic MDCK cells is dependent on the apoptosis-inducing stimulus."48) Biochim Biophys Acta; 1995 Sep 14: 1258(2): 206-14"Regulation of bradykinin-stimulated phospholipase C and arachidonic acid release by protein kinase A in MDCK-D1 cells."49) Pflugers Arch; 1995 Apr: 429(6): 832-40"Mechanisms of dopamine effects on Na-K-ATPase activity in Madin-Darby canine kidney (MDCK) epithelial cells."50) J Membr Biol; 1995 Mar: 144(1): 21-30"The chloride concentration in the lateral intercellular spaces of MDCK cell monolayers."

**COMENTARIOS:** From kidney of normal female adult Cocker Spaniel in 1958 by SH Madin and NB Darby (Madin Darby Canine Kidney). Supports growth of wide range of animal viruses: VSV (Indiana strain), infectious Canine Hepatitis, Vaccinia, Coxsackie B5, Adeno and reo viruses, SVEV

**REFERENCIA N°: ATCC N°: CRL-1427 (lote 2006399) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Osteosarcoma de humano

**MORFOLOGÍA:** Fibroblasto

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2 mM GLUTAMINA + 1% de aminoácidos no esenciales + 1mM Piruvato sódico + 10% Suero bovino fetal.

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**N° PASE:** 98

**REFERENCIAS:** Billiau A , et al. Human interferon: mass production in a newly established cell line, MG-63. *Antimicrob. Agents Chemother.* 12: 11-15, 1977.  
Takeuchi Y , et al. Relationship between actions of transforming growth factor (TGF)-beta and cell surface expression of its receptors in clonal osteoblastic cells.*J.Cell.Physiol.*162:315-321,1995.  
Yee A , et al. Biochemical characterization of the human cyclin-dependent protein kinase activating kinase. *J. Biol. Chem.* 271: 471-477, 1996

**COMENTARIOS:** Es una línea derivada de un humano, varón caucasiano de 14 años. Se puede inducir la producción de altos niveles de interferón, usando ácido poliinosinico, ácido policitidilico, cicloheximida y actinomicina D. Antigenicamente, parece que el interferón de MG-63 está más relacionado con el fibroblasto humano que con el interferón de leucocito

## **MH-S**

**REFERENCIA N°: ATCC N°: CRL-2019 (lote No70013100) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** macrophage, alveolar mixed, adherent and suspensión

**MORFOLOGÍA:** *Mus musculus*, mouse, lung,

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, Catalog No. 30-2001. To make the complete growth medium, add the following components to the base medium: 2-mercaptoethanol to a final concentration of 0.05 mM; fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:**

**CARIOTIPO:**

**DNA PROFILE:** STR-PCR Data:

**ANTIGEN EXPRESSION:** CD11b (Mac-1); Class II antigens (I-A); T antigen

**RECEPTOR EXPRESSION:** Fc

**GENES EXPRESSED:** interleukin 1 (IL-1)

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by transferring floating cells to a centrifuge tube Rinse adherent cells with 0.25% trypsin, 0.53 mM EDTA solution. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add to floating cells collected above and centrifuge the cell suspension at 1000 rpm for 10 minutes, resuspend the pellet in fresh medium, aspirate and dispense into new flasks.

**Subcultivation Ratio:** A subcultivation ratio of 1:2 to 1:6 is recommended

**Medium Renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** 2 [Cells may contain SV40 virus]

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** I Mbawuike, HB Herscowitz

**REFERENCIAS:** Mbawuike IN, Hercowitz HB. MH-S, a murine alveolar macrophage cell line: morphological, cytochemical, and functional characteristics. J. Leukocyte Biol. 46: 119-127, 1989. PubMed: [2787372](#)

**COMENTARIOS:** BALB/c, male, 7 weeks

The MH-S cell line was derived by SV40 transformation of an adherent cell enriched population of mouse alveolar macrophages. The cells retain many of the properties of alveolar macrophages including typical macrophage morphology.

They are adherent, phagocytic, esterase positive and peroxidase negative.

Lipopolysaccharide (LPS) treatment stimulates IL-1 production.

The cells are capable of suppressing the in vitro plaque forming cell (PFC) response in a cell dose dependent manner.

**MIA-Pa-Ca-2**

**REFERENCIA Nº: ECACC Nº: 85062806 (lote No04K019) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** Human Caucasian pancreatic carcinoma

**MORFOLOGÍA:** epitelial, adherente

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 18

**CARIOTIPO:** Modal no. 61; hypotriploid

DNA PROFILE: STR-PCR Data:

Amelogenin: X  
CSF1PO: 10  
D13S317: 12,13  
D16S539: 10,13  
D5S818: 12,13  
D7S820: 12,13  
THO1: 9,10  
TPOX: 9  
vWA: 15

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at 1-3x10,000 cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Dr W Scheirer, Sandoz Forschungsinstitut GmbH, Vienna

**PATENTES:** None specified by Depositor

**REFERENCIAS:** Int J Cancer 1977;19:128

**COMENTARIOS:** An established cell line from an undifferentiated human pancreatic carcinoma. The tumour was taken from a 65 year old Caucasian male. The cells are large with abundant cytoplasm, exhibit a high degree of aneuploidy, have a tendency to grow on top of other cells, eventually growing free in suspension. Sensitive to L-Asparaginase

### **MOLT-3**

**REFERENCIA Nº: ECACC Nº: 90021901 (lote No 99D046) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica

surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human

**MORFOLOGÍA:** T lymphoblast

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

**DNA PROFILE:** This is a hypertetraploid human cell line. The modal chromosome number was 97, occurring in 48% of cells. The rate of cells with higher ploidies was 2%. Three markers were common to all cells. They are: ?del(6) (q21), t(7;7), and an unidentifiable M5. The der(6) generally had three copies per cell, and the i(7q), two copies. The majority of normal chromosomes had 4 copies per cell. N8, N17, N19 and N20 had more than 4 copies in many cells. The X and Y chromosomes were two copies each per cell. Neither HSR chromosomes nor DM's were detected.

**STR-PROFILING:**

AND3S1358: 15,16,17

TH01: 6,8

D21S11: 29,30

D18S51: 13,17,18

D5S818: 12

D13S317: 12,13

D7S820: 8,10

D16S539: 11,13,14

CSF1PO: 11,12

vWA: 17

D8S1179: 9,13,14,15

TPOX: 8

FGA: 22,24

D19S433: 14,15

D2S1338: 23,24

Penta\_E: 14,16

Penta\_D: 8,13

Amelogenin: X,Y TIGEN EXPRESSION: CD1 (65%), CD4 (66%), CD5 (97%), CD7 (97%)

**GENES EXPRESSED:** terminal deoxynucleotidyl transferase (TdT) activity is high

**ISOENZYMES:**

AK-1, 0

ES-D, 1

G6PD, B

GLO-I, 1

Me-2, 0

PGM1, 1

PGM3, 0

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures are maintained by addition or replacement of fresh medium. Establish new cultures at  $5 \times 10^5$  viable cells/mL and subculture at between  $1$  and  $2 \times 10^6$  cells/mL.

**Medium Renewal:** Every 3 to 4 days

**NIVEL DE BIOSEGURIDAD:** 2. The cells should be handled under laboratory containment level 2 conditions. Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from the ATCC

**REFERENCIAS:** J Nat Cancer Inst 1972;49:891

**COMENTARIOS:** MOLT-3 is a T lymphoblast cell line that was isolated from the peripheral blood of a 19-year-old, male patient with acute lymphoblastic leukemia. This cell line was deposited by J Minowada. It can be used in immune system disorders, immunology, and immuno-oncology research.

No immunoglobulin or Epstein-Barr virus is detectable.

The patient had received prior multidrug chemotherapy

#### **MOLT-4**

**REFERENCIA N°: ECACC N°: 85011413 (lote CB2383) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human acute T lymphoblastic leukaemia

**MORFOLOGÍA** Suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Modal no. 95; hypertetraploid Modal no. 95; hypertetraploid

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between  $3-9 \times 10^5$  cells/ml; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Prof H Harris/Dr R Sutherland, Sir William Dunn School of Pathology, Oxford

**REFERENCIAS:** J Nat Cancer Inst 1972;49:891; Nature 1979;279:243

Abaan OD, Polley EC, Davis SR, Zhu YJ, Bilke S, Walker RL, Pineda M, Gindin Y, Jiang Y, Reinhold WC, Holbeck SL, Simon RM, Doroshow JH, Pommier Y, Meltzer PS. 2013 The exomes of the NCI-60 panel: a genomic resource for cancer biology and systems pharmacology. *Cancer Res.* 73(14):4372-82. [PMID: 23856246](#).

**COMENTARIOS:** A suspension culture derived from the peripheral blood of a 19 year old male with acute lymphoblastic leukaemia in relapse. A stable T-cell leukaemia that forms rosettes with sheep erythrocytes.

#### **NCI-H460**

**REFERENCIA Nº: ATCC Nº: HTB-177** (lote Nº 4048184) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

1. This cell line was deposited at the ATCC by Dr. Adi F. Gazdar and is provided for research purposes only. Neither the cell line nor products derived from it may be sold or used for commercial purposes. Nor can the cells be distributed to third parties for purposes of sale, or producing for sale, cells or their products. The cells are provided as service to the research community. They are provided without warranty of merchantability or fitness for a particular purpose or any other warranty, expressed or implied.
2. Any proposed commercial use of these cells, or their products, must first be negotiated with the National Cancer Institute (NCI). For further information, please contact NCI's Technology Transfer Center at [NCI\\_TTC\\_Contact@mail.nih.gov](mailto:NCI_TTC_Contact@mail.nih.gov) or by phone at (240)-276-5514

**DESCRIPCION CELULAR:** *Homo sapiens*, human, lung: pleural effusion, carcinoma; large cell lung cancer

**MORFOLOGÍA** epitelial, adherent

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:** 143

**POPULATION DOUBLING TIME:** 23 hrs in medium with serum; 42 to 60 hrs in serum

**CARIOTIPO:** modal numbr = 57; range = 53 to 65. This is a hypotriploid human cell line. The modal chromosome number is 57 although cells with 58 chromosomes occurred with a comparable

frequency. The frequency of higher ploidies was 1.7%. Seven marker chromosomes, der(9)t(1;9)(q21;p24), der(9)t(7;9)(p11;p22), t(10q14q), der(16)t(7;16)(q11.23;q22), a small ring (about 1/2 the size of a G chromosome) and two others, were common to all cells. Three other markers were found in some cells only. The markers, t(7;9) and t(7;16) were mostly paired. Normal N9 was absent, and N7 and N16 had only a single copy per cell. Two copies each of the X and the Y were present in all cells.

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X,Y  
CSF1PO: 11,12  
D13S317: 13  
D16S539: 9  
D5S818: 9,10  
D7S820: 9,12  
THO1: 9.3  
TPOX: 8

vWA: 17

**ISOENZIMAS:**

AK-1, 1  
ES-D, 1  
G6PD, B  
GLO-I, 1-2  
Me-2, 1  
PGM1, 1  
PGM3, 1

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes. Corning® T-75 flasks (catalog #430641) are recommended for subculturing this product.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 ml of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

Subcultivation Ratio: A subcultivation ratio of 1:3 to 1:8 is recommended

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the

responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** AF Gazdar, JD Minna

**REFERENCIAS:** Banks-Schlegel SP, et al. Intermediate filament and cross-linked envelope expression in human lung tumor cell lines. *Cancer Res.* 45: 1187-1197, 1985. PubMed: [2578876](#)

Takahashi T, et al. p53: A frequent target for genetic abnormalities in lung cancer. *Science* 246: 491-494, 1989. PubMed: [2554494](#)

Brower M, et al. Growth of cell lines and clinical specimens of human non-small cell lung cancer in a serum-free defined medium. *Cancer Res.* 46: 798-806, 1986. PubMed: [3940644](#)

Geiger T, et al. Antitumor activity of a PKC-alpha antisense oligonucleotide in combination with standard chemotherapeutic agents against various human tumors transplanted into nude mice. *Anticancer Drug Des.* 13: 35-45, 1998. PubMed: [9474241](#)

**COMENTARIOS:** The NCI-H460 cell line was derived by A.F. Gazdar and associates in 1982 from the pleural fluid of a patient with large cell cancer of the lung. The cells express easily detectable p53 mRNA at levels comparable to normal lung tissue, and exhibit no gross structural DNA abnormalities.

The cells stain positively for keratin and vimentin but are negative for neurofilament triplet protein.

## **NCI-H520**

**REFERENCIA N°: ATCC N°: HTB-182**(lote No590058814) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

This cell line was deposited by Dr. A. Gazdar and is provided for research purposes only. This material is subject to the following restrictions in addition to those outlined in the ATCC Material Transfer Agreement:

1. Transfers - Biological Materials may not be transferred to third parties for purposes of sale, or producing for sale
2. Commercial Use - all for-profit and non-profit Recipients must obtain a commercial use license prior to Commercial Use

Any proposed Commercial Use with these cells must first be negotiated with:

National Cancer Institute (NCI)

**DESCRIPCION CELULAR:** Human cells. Squamous Cell Carcinoma

**MORFOLOGÍA:** epitelial

**TUMORIGENIC:** Yes;

Yes, in nude mice inoculated subcutaneously with 10(7) cells  
(Tumors developed within 21 days at 100% frequency (5/5).)

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** This is a hypotriploid human cell line. The modal chromosome number is 58 occurring at 30%. The frequency of higher ploidies was 3.2%. Over 30 marker chromosomes were common to all cells, and four others were found in some cells. Among the common markers were 1q+, t(1q8q), 2q+, der(16)t(3;16)(q21;q22), der(19)t(13;19)(q21;q13), and der(5)t(5;5)(p15pq13). Generally, there were two copies of der(5) in each cell. Normal Y and D group chromosomes were absent, and the X chromosome was single.

**Mycoplasma contamination:** Not detected

**STR profiling**

Amelogenin: X

CSF1PO: 10

D13S317: 10,11

D16S539: 8,13

D5S818: 12,13

D7S820: 8,12

THO1: 10

TPOX: 8

vWA: 18,19

**ISOENZYMES:**

AK-1, 1

ES-D, 1

G6PD, B

GLO-I, 2

Me-2, 0

PGM1, 1

PGM3, 1

**PROCEDIMIENTO DE SUBCULTIVO:** Remove medium, and rinse with 0.25% trypsin, 0.03% EDTA solution. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:6 is recommended

**Medium Renewal:** 2 to 3 times per week

#### NIVEL DE BIOSEGURIDAD: BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

**DEPOSITOR:** AF Gazdar, JD Minna

**Special collection:** Human Tumor Cell Bank

**REFERENCIAS:** Consultar en la web ATCC

**COMENTARIOS:** This cell line is a suitable transfection host. The NCI-H520 cell line was derived by A.F. Gazdar and associates in 1982 from a sample of a lung mass taken from a patient with squamous cell carcinoma of the lung.

The cells express greatly reduced levels of p53 mRNA relative to normal lung tissue, but exhibit no gross structural DNA abnormalities.

The cells stain positively for keratin and vimentin but are negative for neurofilament triplet protein. The line can be cloned in soft agar (with or without serum).

#### **NCI-H727**

**REFERENCIA N°: ATCC N°: CRL-5815 (lote No70052784) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** *Homo sapiens*, human, Lung; Bronchus, Carcinoid

**MORFOLOGÍA:** epitelial, Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, ATCC [30-2001](#). To make the complete growth medium, add the following components to the base medium: fetal bovine serum (ATCC [30-2020](#)) to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

Amelogenin: X  
CSF1PO: 11,12  
D13S317: 11  
D16S539: 11,13  
D5S818: 11,12  
D7S820: 8,10  
TH01: 8  
TPOX: 8  
vWA: 14,15  
D3S1358: 16  
D21S11: 29,32.2  
D18S51: 16  
Penta\_E: 14  
Penta\_D: 9,14  
D8S1179: 10,14  
FGA: 20,22  
D19S433: 13,14  
D2S1338: 17,24

**GENES EXPRESSED:** neuromedin B (NMB)

**EXPRESSION MARKERS:** Epidermal growth factor (EGF)

**PROCEDIMIENTO DE SUBCULTIVO:**

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.

5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:6 is recommended

**Medium Renewal:** Every 2 to 3 day

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** AF Gazdar, JD Minna

**SPECIALCOLLECTION:** NCRR Contract

**REFERENCIAS:** Takahashi T, et al. p53: A frequent target for genetic abnormalities in lung cancer. Science 246: 491-494, 1989. PubMed: [2554494](#)

Brandt DW, et al. Calcium-stimulated parathyroid hormone-like protein secretion: potentiation through a protein kinase-C pathway. Endocrinology 128: 2999-3004, 1991. PubMed: [2036974](#)

Giaccone G, et al. Neuromedin B is present in lung cancer cell lines. Cancer Res. 52: 2732s-2736s, 1992. PubMed: [1563005](#)

NCI-Navy Medical Oncology Branch Cell Line Supplement. J. Cell. Biochem. suppl. 24: 1996.

Natl. Cancer Inst. Monogr. 13: 117-123, 1992.

**COMENTARIOS:** CI-H727 [H727] is a cell line exhibiting epithelial morphology that was isolated from the lungs of a 65-year-old, White female with a carcinoid tumor.

This line was derived by A.F. Gazdar, H.K. Oie, J.D. Minna and associates from tissue taken prior to therapy.

This is the best differentiated of the available bronchial carcinoid lines.

The cells express easily detectable levels of p53 mRNA compared to levels found in normal lung. The cells are able to synthesize the peptide NMB (at 0.1 pmol/mg protein), but not the gastrin releasing peptide (GRP).

The cell line secretes a parathyroid hormone-like protein which is calcium stimulated through a protein kinase C pathway.

Growth of NCI-H727 cells is inhibited by epidermal growth factor (EGF) receptor monoclonal antibodies.

**NCI-H820**

**REFERENCIA N°: ATCC N°: HTB-181 (lote 59819490) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** adenocarcinoma de pulmón; lung; derived from metastatic site: lymph node

**MORFOLOGÍA** epitelial-like

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 5% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Near triploid; modal number = 69; range = 46 to 74; there were 25 to 35 marker chromosomes per metaphase; the i(7p), t(6p;??) and ?i(8q) were the few identifiable markers. One B-like chromosome (Bq+) had a length comparable to N1; another B size chromosome had an interstitial HSR segment. There were 1 to 2 structurally normal X chromosomes, and two or more Y chromosomes were detected in the QM stained metaphases.

DNA PROFILE: STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 11,12

D13S317: 12

D16S539: 9,11

D5S818: 9,11

D7S820: 10,13

THO1: 8

TPOX: 12

vWA: 18

**ISOENZIMAS:**

AK-1, 1

ES-D, 1

G6PD, B

GLO-I, 2

Me-2, 2

PGM1, 1

PGM3, 1

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.

2. Briefly rinse the cell layer with Ca<sup>++</sup>/Mg<sup>++</sup> free Dulbecco's phosphate-buffered saline (D-PBS) or 0.25% (w/v) Trypsin - 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 1.0 to 2.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Transfer cell suspension to a centrifuge tube and spin at approximately 125 x g for 5 to 10 minutes. Discard supernatant.
6. Resuspend the cell pellet in fresh growth medium. Add appropriate aliquots of the cell suspension to new culture vessels.
7. Incubate cultures at 37°C.

Subcultivation Ratio: A subcultivation ratio of 1:2 to 1:3 is recommended

Medium renewal: Every 2 to 3

Requires 5% DMSO and 95% foetal bovine serum (FBS) as cryoprotectant. Growing orders are recommended due to difficulties that can be experienced during the initial start-up of this cell line. Replacements will be charged at full cost where claims cannot be substantiated

#### **NIVEL DE BIOSEGURIDAD: 1**

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** AF Gazdar, JD Minna

**REFERENCIAS:** Takahashi T, et al. p53: A frequent target for genetic abnormalities in lung cancer. Science 246: 491-494, 1989. PubMed: [2554494](#)  
Gazdar AF, et al. Peripheral airway cell differentiation in human lung cancer cell lines. Cancer Res. 50: 5481-5487, 1990. PubMed: [2386953](#)

**COMENTARIOS:** The cell line expresses three surfactant associated proteins (SP-A constitutively, and SP-B and SP-C after dexamethasone induction).

Electron microscopy shows intracytoplasmic multilamellar bodies suggestive of Type II pneumocytes

#### **NCI-H1650**

**REFERENCIA N°: ATCC N°: 5883 (LOTE 59612585) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** *Homo sapiens*, human. Epitelial. Lung.

**MORFOLOGÍA:** Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**CARIOTIPO:**

**STR profiling**

Amelogenin: X  
CSF1PO: 11  
D13S317: 11  
D16S539: 11,12  
D5S818: 11  
D7S820: 8,9  
THO1: 9.3  
TPOX: 11  
vWA: 18

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes. Corning® T-75 flasks (catalog #430641) are recommended for subculturing this product.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:4 to 1:6 is recommended

**Medium Renewal:** Every 2 to 3 days

Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO2. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**DEPOSITOR:** AF Gazdar, JD Minna

**SPECIAL COLLECTION:** NCRR Contract

**REFERENCIAS:** consultar en la web de la ATCC.

**COMENTARIOS:** The patient was a smoker. Pleural effusion. Adenocarcinoma; Bronchoalveolar carcinoma; Stage 3B

**NCI-H1975**

**REFERENCIA Nº: ATCC Nº: CRL-5908** (lote No61363175) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human cells; Adenocarcinoma; Non-small cell lung cancer; Lung

**MORFOLOGÍA:** epitelial; Adherent

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

**ANTIGEN EXPRESSION:**

**GENES EXPRESSED:**

**ISOTYPE:**

**DNA PROFILE: STR-PCR Data:**

D3S1358: 14,15

TH01: 7

D21S11: 28

D18S51: 13

Penta\_E: 12,16

D5S818: 11,12

D13S317: 10,13

D7S820: 8,11

D16S539: 9,12

CSF1PO: 12

Penta\_D: 12,13

Amelogenin: X

vWA: 18

D8S1179: 13,16

TPOX: 8,11

FGA: 21,24  
D19S433: 15,15.2  
D2S1338: 17

**PROCEDIMIENTO DE SUBCULTIVO:** Remove medium, and rinse the monolayer with fresh 0.25% trypsin, 0.53 mM EDTA solution. Remove the trypsin, add fresh trypsin and let the culture sit at room temperature (or at 37°C) until the cells detach (about 10 minutes). Add fresh medium, aspirate and dispense into new flasks. Corning® T-75 flasks (catalog #430641) are recommended for subculturing this product.

**Subcultivation Ratio:** 1:3 to 1:6

**Medium Renewal:** two to three times weekly

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** AF Gazdar, JD Minna; NCRR Contract

**REFERENCIAS:** NCI-Navy Medical Oncology Branch Cell Line Supplement. J. Cell. Biochem. suppl. 24: 1996.

Sordella R, et al. Gefitinib-sensitizing EGFR mutations in lung cancer activate anti-apoptotic pathways. Science 305: 1163-1167, 2004. PubMed: [15284455](#)

**COMENTARIOS:** The line was established in July 1988. The tissue donor was a non-smoker.

## **NEURO-2A**

**REFERENCIA Nº: ATCC Nº: CCL-131 (LOTE 59538655) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse Albino neuroblastoma

**MORFOLOGÍA:** Neuronal/amoeboid-like

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2 mM GLUTAMINA + 1% de aminoácidos no esenciales + 1mM Piruvato sódico + 10% Suero bovino fetal.

**CARIOTIPO:** 2n = 40

**Nº PASE:** 188 (recibido de la ATCC en el pase nº 182)

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:8 i.e. seeding at  $4 \times 10^4$  cells  $\text{cm}^2$ ; 5%  $\text{CO}_2$ ;  $37^\circ\text{C}$ . After resuscitation cells can take up to 6 days before a monolayer forms. These cells only adhere to the culture flask very lightly, care should be taken when subculturing. There is no need to wash the cells with PBS or trypsin, merely pour off half of the spent medium carefully, give the flask a gentle knock and resuspend the cells in fresh medium using a pipette to gently disperse any clumps of cells to finally reseed at 1:2. On arrival, growing cultures should be spun out and re-seeded in fresh media.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** J Cell Biol 1969;43:69A; Proc Natl Acad Sci, USA 1970;65:129

**COMENTARIOS:** Derived from a spontaneous tumour in an albino strain A mouse. Cells produce microtubular protein which is believed to play a role in the contractile system giving axoplasmic flow in nerve cells.

## NL20

**REFERENCIA N°: ATCC N°:** CRL-2503 (lote No63849492) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** lung/bronchus, human. NL20 (ATCC CRL-2503) is an immortalized, nontumorigenic human bronchial epithelial cell line derived from normal bronchus taken from an accident victim at autopsy. The cell line was established by transfection with the origin of replication-defective SV40 large T plasmid, p129

**MORFOLOGÍA** epitelial, adherente

**MEDIO DE CULTIVO:** Ham's F12 medium with 1.5 g/L sodium bicarbonate, 2.7 g/L glucose, 2.0 mM L-glutamine, 0.1 mM nonessential amino acids, 0.005 mg/ml insulin, 10 ng/ml epidermal growth factor, 0.001 mg/ml transferrin, 500 ng/ml hydrocortisone and 4% fetal bovine serum

NUMERO DE PASE:

**CARIOTIPO:** near diploid

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used in this protocol are for  $75 \text{ cm}^2$  flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.

2. Add 10-15 mL dissociation solution (0.02% EDTA and 5% dialyzed fetal bovine serum in Ca<sup>++</sup>/Mg<sup>++</sup> free Hanks' BSS) and allow the flask to sit at 37°C for 12 minutes or until the cells detach.

**Note:** To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

3. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
4. Add appropriate aliquots of the cell suspension to new culture vessels.
5. Incubate cultures at 37°C

**Subculture Ratio:** 1:12 to 1:20

**Medium Renewal:** Every 2 to 3 days.

**Note:** For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 13 in **Culture of Animal Cells, a manual of Basic Technique** by R. Ian Freshney, 5th edition, published by Wiley-Liss, N.Y., 2005.

**NIVEL DE BIOSEGURIDAD:** 2 [Cells contain SV40 viral sequences]

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country. Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** JH Schiller

**REFERENCIAS:** Schiller JH, Bittner G. Loss of the tumorigenic phenotype with in vitro, but not in vivo, passaging of a novel series of human bronchial epithelial cell lines: possible role of an alpha 5/beta 1-integrin-fibronectin interaction. *Cancer Res.* : 6215-6221, 1995. PubMed: [8521416](#)

Wittenkeller JL, et al. Comparison of spontaneous and induced mutation rates in an immortalized human bronchial epithelial cell line and its tumorigenic derivative. *Oncology* 54: 335-341, 1997. PubMed: [9216860](#)

Schiller JH, et al. Karyotypic changes associated with spontaneous acquisition and loss of tumorigenicity in a human transformed bronchial epithelial cell line: evidence for in vivo selection of transformed clones. *In Vitro Cell. Dev. Biol. Anim.* 34: 283-289, 1998. PubMed: [9590501](#)

**COMENTARIOS:** Procede de una mujer caucasiana de 20 años, víctima de un accidente. NL20 cells at passage 183 were inoculated into nude mice and a small slowly growing subcutaneous tumor developed from a minor clone in this otherwise stable cell line.

After three months the tumor was removed and placed in culture. At passage 3, these cells were re-injected into nude mice.

One of the resulting tumors was dissociated, placed in culture and designated NL20-TA. This cell line (ATCC [CRL-2504](#)) remains tumorigenic up to at least passage 250.

The cells were not tumorigenic in immunosuppressed mice, but did form colonies in semisolid medium.

The non-tumorigenic NL20 cell line and the tumorigenic NL20-TA cell line form a pair of immortal cell lines that can be used to study tumor progression

## NL20-TA

**REFERENCIA N°: ATCC N°: CRL-2504 (lote No1599418) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, accident victim, Caucasian white.

**MEDIO DE CULTIVO:** HAM F-12 medium with 1.5 g/L sodium bicarbonate, 2.7 g/L glucose, 2.0 mM L-glutamine, 0.1 mM nonessential amino acids, 0.005 mg/ml insulin, 10 ng/ml epidermal growth factor, 0.001 mg/ml transferrin, 500 ng/ml hydrocortisone and 4% fetal bovine serum

### NUMERO DE PASE:

**PASSAGE HISTORY:** NL20 cells at passage 183 were inoculated into nude mice and a small slowly growing subcutaneous tumor developed from a minor clone in this otherwise stable cell line. After three months the tumor was removed and placed in culture. At passage 3, these cells were re-injected into nude mice.

One of the resulting tumors was dissociated, placed in culture and designated NL20-TA. This cell line (ATCC CRL-2504) remains tumorigenic up to at least passage 250.

### CARIOTIPO:

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Subcultivation Ratio: A subcultivation ratio of 1:50 to 1:500 is recommended

Medium Renewal: Every 2 to 3 days

Remove medium, add dissociation solution (0.02% EDTA and 5% dialized fetal bovine serum in Ca-Mg free Hanks' BSS) and allow the flask to sit at 37C for 12 minutes or until the cells detach.

Add fresh culture medium, aspirate and dispense into new culture flasks.

Subculture weekly.

**NIVEL DE BIOSEGURIDAD:** 2 Cells contain SV40 viral sequences

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** JH Schiller

**REFERENCIAS:** Schiller JH, et al. Phenotypic, molecular and genetic characterization of transformed human bronchial epithelial cell strains. *Int. J. Oncol.* 4: 461-470, 1994.

Schiller JH, Bittner G. Loss of the tumorigenic phenotype with in vitro, but not in vivo, passaging of a novel series of human bronchial epithelial cell lines: possible role of an alpha 5/beta 1-integrin-fibronectin interaction. Cancer Res. : 6215-6221, 1995. PubMed: [8521416](#)

Schiller JH, et al. Karyotypic changes associated with spontaneous acquisition and loss of tumorigenicity in a human transformed bronchial epithelial cell line: evidence for in vivo selection of transformed clones. In Vitro Cell. Dev. Biol. Anim. 34: 283-289, 1998. PubMed: [9590501](#)

**COMENTARIOS:** NL20 (ATCC [CRL-2503](#)) is an immortalized, nontumorigenic human bronchial epithelial cell line derived from normal bronchus taken from an accident victim at autopsy.

The cell line was established by transfection with the origin of replication-defective SV40 large T plasmid, p129.

NL20 cells at passage 183 were inoculated into nude mice and a small slowly growing subcutaneous tumor developed from a minor clone in this otherwise stable cell line.

After three months the tumor was removed and placed in culture. At passage 3, these cells were re-injected into nude mice.

One of the resulting tumors was dissociated, placed in culture and designated NL20-TA. This cell line (ATCC [CRL-2504](#)) remains tumorigenic up to at least passage 250.

Neoplastic

transformation of the NL20 cell line was associated with loss of chromosome 18 together with acquisition of multiple copies of 9q21.2-->34.

The non-tumorigenic NL20 cell line and the tumorigenic NL20-TA cell line form a pair of immortal cell lines that can be used to study tumor progression

**APLICACIONES:** NL20 (ATCC [CRL-2503](#)) is an immortalized, nontumorigenic human bronchial epithelial cell line derived from normal bronchus taken from an accident victim at autopsy.

The cell line was established by transfection with the origin of replication-defective SV40 large T plasmid, p129.

The non-tumorigenic NL20 cell line and the tumorigenic NL20-TA cell line form a pair of immortal cell lines that can be used to study tumor progression

NL20 cells at passage 183 were inoculated into nude mice and a small slowly growing subcutaneous tumor developed from a minor clone in this otherwise stable cell line.

**EFFECTOS:** tumorigenic, forms slowly growing tumors in nude mice

**OE33**

**REFERENCIA Nº: ECACC Nº: 96070808** (lote No09A009) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.**

Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian oesophageal carcinoma

**MORFOLOGÍA** Epithelial, Adherent

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Aneuploid

DNA PROFILE: STR-PCR Data:

Amelogenin: X

CSF1PO: 10

D13S317: 14

D16S539: 12

D5S818: 11

D7S820: 9,10

THO1: 7,8

TPOX: 8,11

vWA: 17

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:8 i.e. seeding at  $1 \times 10^6$  cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C. Initially these cells grow slowly and can take up to 7 days until ready for the next split, 50% media changes will be necessary every 2-3 days (i.e. replacing half the old medium with fresh).

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Drs J C Rockett/A Morriss, Department of Biological Sciences, University of Warwick and Dr S J Darnton, Birmingham Heartlands Hospital

**REFERENCIAS:** Rockett JC, Larkin K, Darnton SJ, Morris AG, Matthews HR 1997 Five newly established oesophageal carcinoma cell lines: phenotypic and immunological characterization. *Br J Cancer*. 75(2):258-63 **PMID: 9010035**

**Whole-genome sequencing of nine esophageal adenocarcinoma cell lines**

Boonstra JJ, van Marion R, Beer DG, Lin L, Chaves P, Ribeiro C, Pereira AD, Roque L, Darnton SJ, Altorki NK, Schrupp DS, Klimstra DS, Tang LH, Eshleman JR, Alvarez H, Shimada Y, van Dekken H, Tilanus HW, Dinjens WN. 2010 Verification and unmasking of widely used human esophageal adenocarcinoma cell lines. *J Natl Cancer Inst*. 102(4):271-4. **PMID: 20075370**.

Barretina J, et al., 2012 The Cancer Cell Line Encyclopedia enables predictive modelling of anticancer drug sensitivity. *Nature*. 483(7391):603-7. **PMID: 22460905**.

**COMENTARIOS** The cell line OE33, also known as JROECL33, was established from the adenocarcinoma of the lower oesophagus (Barrett's metaplasia) of a 73 year old female patient. The tumour was identified as pathological stage IIA (UICC) and showed poor differentiation. OE33 express HLA-A, -B and -C antigens (MHC class I) and ICAM-1 constitutively. Expression of HLA-DR (MHC class II) can be induced by treatment with interferon-gamma. The cells express epithelial cytokeratins and are tumourigenic in nude mice.

Cultures derived from ECACC stocks of this cell line have been whole genome sequenced (Contino *et al* 2016) confirming the presence of many of the known mutations that drive oesophageal cancer

## **PANC-1**

**REFERENCIA N°: ECACC N°: 87092802** (lote CB No06K006) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian pancreas

**MORFOLOGÍA** Epithelial, Adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 10

**CARIOTIPO:** 2n = 46, hypertriploid

DNA PROFILE: STR-PCR Data:

Amelogenin: X  
CSF1PO: 10,12  
D13S317: 11  
D16S539: 11  
D5S818: 11,13  
D7S820: 8,10  
THO1: 7,8  
TPOX: 8,11  
vWA: 15

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at 2-4x10,000 cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Obtained from ATCC

**REFERENCIAS:** J Nat Cancer Inst 1975;15:741

**COMENTARIOS:** Established from a pancreatic carcinoma of ductal origin from a 56-year-old Caucasian male. Cells possess the type B phenotype for G6PD. The Y chromosome could not be detected in this cell line by short tandem repeat (STR)-PCR analysis when tested at ECACC. It is a known phenomenon that due to the increased genetic instability of cancer cell lines the Y

chromosome can be rearranged or lost resulting in lack of detection. The cell line is identical to the source provided by the depositor based on the STR-PCR analysis.

### PC-3

**REFERENCIA N°: ATCC N°: CRL-1435**(lote No70012221, PO No711224671) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** prostate; human; derived from metastatic site: bone; grade IV, adenocarcinoma

**MORFOLOGÍA** epithelial, adherent (The cells form clusters in soft agar and can be adapted to suspension growth)

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated F-12K Medium, Catalog No. 30-2004. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:** The line is near-triploid with a modal number of 62 chromosomes. There are nearly 20 marker chromosomes commonly found in each cell; and normal N2, N3, N4, N5, N12, and N15 are not found. No normal Y chromosomes could be detected by Q-band analysis.

**GENES EXPRESSED:** HLA A1, A9

**ANTIGEN EXPRESSION:** HLA A1, A9

DNA PROFILE: STR-PCR Data:

Amelogenin: X

CSF1PO: 11

D13S317: 11

D16S539: 11

D5S818: 13

D7S820: 8,11

TH01: 6,7

TPOX: 8,9

vWA: 17

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.

3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

Subcultivation Ratio: A subcultivation ratio of 1:3 to 1:6 is recommended

Medium Renewal: 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** ME Kaighn

**REFERENCIAS:** Kaighn ME, et al. Establishment and characterization of a human prostatic carcinoma cell line (PC-3). Invest. Urol. 17: 16-23, 1979. PubMed: [447482](#)  
Chen TR. Chromosome identity of human prostate cancer cell lines, PC-3 and PPC-1. Cytogenet. Cell Genet. 62: 183-184, 1993. PubMed: [8428522](#)  
Ohnuki Y, et al. Chromosomal analysis of human prostatic adenocarcinoma cell lines. Cancer Res. 40: 524-534, 1980. PubMed: [7471073](#)  
Sheng S, et al. Maspin acts at the cell membrane to inhibit invasion and motility of mammary and prostatic cancer cells. Proc. Natl. Acad. Sci. USA 93: 11669-11674, 1996. PubMed: [8876194](#)  
Umekita Y, et al. Human prostate tumor growth in athymic mice: inhibition by androgens and stimulation by finasteride. Proc. Natl. Acad. Sci. USA 93: 11802-11807, 1996. PubMed: [8876218](#)  
Carter RE, et al. Prostate-specific membrane antigen is a hydrolase with substrate and pharmacologic characteristics of a neuropeptidase. Proc. Natl. Acad. Sci. USA 93: 749-753, 1996. PubMed: [8570628](#)  
Nupponen NN, et al. Genetic alterations in prostate cancer cell lines detected by comparative genomic hybridization. Cancer Genet. Cytogenet. 101: 53-57, 1998. PubMed: [9460501](#)  
Geiger T, et al. Antitumor activity of a PKC-alpha antisense oligonucleotide in combination with standard chemotherapeutic agents against various human tumors transplanted into nude mice. Anticancer Drug Des. 13: 35-45, 1998. PubMed: [9474241](#)  
Su ZZ, et al. Surface-epitope masking and expression cloning identifies the human prostate carcinoma tumor antigen gene PCTA-1 a member of the galectin gene family. Proc. Natl. Acad. Sci. USA 93: 7252-7257, 1996. PubMed: [8692978](#)  
The cells form clusters in soft agar and can be adapted to suspension growth

**COMENTARIOS** The PC-3 was initiated from a bone metastasis of a grade IV prostatic adenocarcinoma from a 62-year-old male Caucasian.

The cells form clusters in soft agar and can be adapted to suspension growth.

The cells exhibit low acid phosphatase and testosterone-5-alpha reductase activities.

, Tumorigenic effects: tumors developed within 21 days at 100% frequency (5/5) in nude mice inoculated subcutaneously with 10(7) cells.

**Cross References:** Nucleotide (GenBank) : [X94216](#) H.sapiens mRNA for VEGF-C protein

**PC12**

**REFERENCIA N°: ATCC N°: CRL-1721** (lote No2185012) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Rattus* sp. Small irregularly shaped cells. Adrenal gland. Pheochromocytoma.

**MORFOLOGÍA:** Mixed: floating aggregates of round cells with some attached cells

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, Catalog No. 30-2001. To make the complete growth medium, add the following components to the base medium:

- heat-inactivated horse serum to a final concentration of 10%
- fetal bovine serum to a final concentration of 5%

NUMERO DE PASE: 9

**CARIOTIPO:** 40 chromosomes; 38 autosomes plus XY

**TUMORIGENIC:** Yes;  
Yes, in New England Deaconess Hospital strain rats

**GENES EXPRESSED:** catecholamines: dopamine; norepinephrine

**EXPRESSION MARKERS:** Nerve growth factor (NGF), expressed

**DNA PROFILE:** STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used for this protocol are for a 75cm<sup>2</sup> flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes. Corning T-75 flasks (catalog #431464) are recommended for subculturing this product.

- Transfer cell suspension to centrifuge tube. Centrifuge cells at 180 to 225 xg for 8-15 minutes at room temperature.
- Remove and discard supernatant leaving cell pellet.
- Resuspend the cell pellet with 5 mls of fresh medium (or use an appropriate volume of medium which is a multiple of 5 to facilitate the next step).
- Gently aspirate each 5 ml aliquot of cells 4 or 5 times with a new 20 ml syringe outfitted with a 22g (1½ in.) needle to break up cell clusters.
- Add appropriate aliquots of the cell suspension to new 75 cm<sup>2</sup> flask with 10-15 ml fresh growth medium. Seed flask 5 x 10<sup>(5)</sup> to 1 x 10<sup>(6)</sup> viable cells/ml or use subcultivation ratio of 1:2 to 1:4.

- Place culture vessels in incubator at 37°C Subculture when cell density reaches between 2-4 x 10<sup>6</sup> viable cells/ml.

**Medium Renewal:** Every 2 to 3 days

**POPULATION DOUBLING TIME:** Approximately 48 hrs

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** B Patterson

**REFERENCIAS:** Consultar la web de la ATCC

**COMENTARIOS:** This cell line is a suitable transfection host. The PC-12 cell line was derived from a transplantable rat pheochromocytoma.

The cells respond reversibly to NGF by induction of the neuronal phenotype when plated on Collagen IV coated culture flasks.

The cells do not synthesize epinephrine.

**PLC/PRF/5**

**REFERENCIA N°: ECACC N°: 85061113 (lote NoCB2495) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human, Liver, Carcinoma

**MORFOLOGÍA:** Epithelial, adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** Not specified

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X  
CSF1PO: 10  
D5S818: 12  
D7S820: 9,11  
D13S317: 11,12  
D16S539: 13  
TH01: 7,8  
TPOX: 8  
vWA: 15,16

**PRODUCTOS:** Hepatitis B Surface Antigen (HBSAg)

**PROCEDIMIENTO DE SUBCULTIVO:**

Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at  $1-3 \times 10^6$  cells/cm<sup>2</sup> using 0.05% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Prof H Harris/Dr R Sutherland, Sir William Dunn School of Pathology, Oxford (ATCC CRL 8024)

**REFERENCIAS:** Proc Natl Acad Sci, USA 1985;82:83; J Virol 1979;32:796; Science 1980;209:497; Science 1983;222:385; Nature 1979;282:61

**COMENTARIOS:** Alexander cell line which produces Hepatitis B antigen. The virus genome may be inducible in selective media. The cells should be handled under laboratory containment level 2. Expresses c-abl, c-fes, c-fms, c-myc, c-ha-ras and c-sis oncogenes. However there is currently no evidence that this cell line produces infectious Hepatitis B virus. Tumourigenicity and virus studies: Hepatitis B.

**RAMOS**

**REFERENCIA Nº: ECACC Nº: 85030802 (lote CB No CB2440) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian Burkitt's lymphoma

**MORFOLOGÍA** Suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 1 mM piruvato sódico +10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** Modal no. 45

DNA PROFILE: STR-PCR Data:

Amelogenin:X  
CSF1PO:10,11  
D13S317:13,14  
D16S539:10,13  
D5S818:7,12  
D7S820:11  
THO1:7,9.3

TPOX:8,9  
vWA: 15,16

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 3-9x10<sup>6</sup> cells/ml; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

ACDP Guidance: [Biological agents: Managing the risks in laboratories and healthcare premises.](#)

Hyperlinks to MSDS documents:

[Frozen cell cultures Material Safety Data Sheet](#)

[Growing cell cultures Material Safety Data Sheet](#)

[Nucleic acids derived from cell cultures Material Safety Data Sheet](#)

**DEPOSITOR:** Prof M A Epstein/Dr S Finerty, Department of Pathology, University of Bristol

**REFERENCIAS:** Intervirology 1975;5:319; Int. J. Cancer 1977;19:337; J. Immunol 1982;129:1336

**COMENTARIOS:** Derived from a Burkitt's lymphoma which does not possess the EBV genome. EBV infectability and permanent conversion into EBV positive sub-lines is possible by in vitro infection. The cells have B lymphocyte characteristics, with surface associated mu and kappa chains.

**RAW 264.7**

**REFERENCIA N°: ECACC N°: 91062702 (lote 06B007) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Macrófago monocito

**ORGANISMO:**Ratón

**MEDIO DE CULTIVO:** DMEM + 2mM glutamina + 1.5 g/ L bicarbonato sódico + 10 mM HEPES + 1 mM piruvato sódico + 4.5 g/L glucosa+ 10% Suero bovino fetal. El medio está formulado para incubar a 37° C en atmósfera con 5% CO<sub>2</sub>

**NUMERO DE PASE:** 13

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 1

**MORFOLOGÍA:** Macrófago

**REFERENCIAS:** Ralph P, Nakoinz I. Antibody-dependent killing of erythrocyte and tumor targets by macrophage-related cell lines: enhancement by PPD and LPS. J. Immunol.119:950-954,1977.PubMed:894031

Raschke WC , et al. Functional macrophage cell lines transformed by Abelson leukemia virus. Cell15:261-267,1978.PubMed:212198

Denlinger LC , et al. Regulation of inducible nitric oxide synthase expression by macrophage purinoreceptors and calcium. J. Biol. Chem. 271: 337-342, 1996. PubMed:8550583

Hambleton J , et al. Activation of c-Jun N-terminal kinase in bacterial lipopolysaccharide-stimulated macrophages. Proc. Natl. Acad. Sci. USA 93: 2774-2778,1996.PubMed:8610116

Taylor GA, et al. Identification of a novel GTPase, the inducibly expressed GTPase, that accumulates in response to interferon gamma. J. Biol. Chem. 271: 20399-20405,1996.PubMed:8702776

Li YM , et al. Molecular identity and cellular distribution of advanced glycation endproduct receptors: relationship of p60 to OST-48 and p90 to 80K-H membrane proteins. Proc. Natl. Acad. Sci. USA 93: 11047-11052, 1996. PubMed: 8855306

Panneerselvam K, Freeze HH . Mannose enters mammalian cells using a specific transporter that is insensitive to glucose. J. Biol. Chem. 271: 9417-9421, 1996. PubMed:8621609

Lokuta MA , et al. Mechanisms of murine RANTES chemokine gene induction by Newcastle disease virus. J. Biol. Chem. 271: 13731-13738, 1996. PubMed: 8662857

Taylor MF, et al. In vitro efficacy of morpholino-modified antisense oligomers directed against tumor necrosis factor-alpha mRNA. J. Biol. Chem. 271: 17445-17452, 1996. PubMed: 8663413

**COMENTARIOS:** Esta línea fue establecida desde un tumor inducido por el virus de la leucemia murina de Abelson. Esta línea no secreta partículas virales detectables y es negativa para el ensayo de formación de placas XC

**RAW 264**

**REFERENCIA N°: ECACC N°: 85062803 (lote CB No1573) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse leukaemic monocyte-macrophage

**MORFOLOGÍA** Macrofago Semi-adherente

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS) or DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at  $2-4 \times 10^5$  cells/cm<sup>2</sup>; 5% CO<sub>2</sub>; 37°C. . Use cell scrapers to remove attached cells. Cells are semi-adherent, i.e. some cells grow in suspension, some loosely attach to the surface and others flattened out and attach to the flask. Cells should not be allowed to overgrow and become confluent as this can lead to loss of the flattened adherent cell characteristic.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Dr W Scheirer, Sandoz Forschungsinstitut GmbH, Vienna

**REFERENCIAS:** J Immunol 1977;119:950; Cell 1978;15:261

**COMENTARIOS:** Established from an ascites of a tumour induced in a male mouse by intraperitoneal injection of Abelson Leukaemia virus (A-MuLV). Cells with pinocytose neutral red and phagocytose zymosan. Cells capable of antibody-dependent lysis of sheep erythrocytes and tumour targets. Growth inhibited by LPS (0.5ng/ml).

**RBL-2H3**

**REFERENCIA Nº: ATCC Nº:** CRL-2256 (lote No 2454194) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:**

*Periferal bloods; Rattus norvegicus*, rat basophil; chemically induce

**MORFOLOGÍA** fibroblast

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: **heat-inactivated fetal bovine serum to a final concentration of 15%.**

**NUMERO DE PASE:** 24

**CARIOTIPO:**

**RECEPTOR EXPRESSION:** FcERI (Fc of IgE)

**DNA PROFILE:** STR-PCR Data:

**GENES EXPRESADOS:** Histamina

**PRODUCTOS EXPRESADOS:** histamina

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used in this protocol are for 75 cm<sup>2</sup> flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 ml of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes). Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

Subcultivation Ratio: A subcultivation ratio of 1:4 to 1:8 is recommended.

Medium Renewal: Every 2 to 3 days

Note: For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 10 in Culture of Animal Cells, a manual of Basic Technique by R. Ian Freshney, 3rd edition, published by Alan R. Liss, N.Y., 1994.

Requires 5% DMSO and 95% foetal bovine serum (FBS) as cryoprotectant. Growing orders are recommended due to difficulties that can be experienced during the initial start-up of this cell line. Replacements will be charged at full cost where claims cannot be substantiated

**NIVEL DE BIOSEGURIDAD:** 2. Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** RP Siraganian

**APLICACIONES:** This cell line is a suitable transfection host.

They have been used extensively for studies of different aspects of secretion in cells including the role of changes in intracellular calcium, the activation of phospholipases, protein kinases and small G proteins.

They have been used extensively to study FcERI and the biochemical pathways for secretion in mast cells.

**REFERENCIAS:** Kulczycki A Jr., et al. The interaction of IgE with rat basophilic leukemia cells. I. Evidence for specific binding of IgE. J. Exp. Med. 139: 600-616, 1974. PubMed: [4812630](#)  
Barsumian EL, et al. IgE-induced histamine release from rat basophilic leukemia cell lines: isolation of releasing and nonreleasing clones. Eur. J. Immunol. 11: 317-323, 1981. PubMed: [6166481](#)  
Eccleston E, et al. Basophilic leukaemia in the albino rat and a demonstration of the basopietin. Nat. New Biol. 244: 73-76, 1973.

Kulczycki A Jr., et al. The interaction of IgE with rat basophilic leukemia cells. I. Evidence for specific binding of IgE. J. Exp. Med. 139: 600-616, 1974. PubMed: [4812630](#)

Barsumian EL, et al. IgE-induced histamine release from rat basophilic leukemia cell lines: isolation of releasing and nonreleasing clones. Eur. J. Immunol. 11: 317-323, 1981. PubMed: [6166481](#)

Eccleston E, et al. Basophilic leukaemia in the albino rat and a demonstration of the basopietin. Nat. New Biol. 244: 73-76, 1973.

**COMENTARIOS:** RBL-2H3 is a basophilic leukemia cell line isolated and cloned in 1978 in the Laboratory of Immunology at the National Institute of Dental Research from Wistar rat basophilic cells that were maintained as tumors. These cells have high affinity IgE receptors.

They can be activated to secrete histamine and other mediators by aggregation of these receptors or with calcium ionophores.

RBL-2H3 cells have been the model for studies of structure of FcERI.

Although nearly all lots of fetal bovine serum support the growth of these cells, the cells grown in some lots degranulate better after FcERI aggregation.

Another rat basophil line is available (RBL-1, see ATCC [CRL-1378](#)) that does not degranulate.

Histamine release capacity may be seriously reduced after too much subculturing

**RKO**

**REFERENCIA Nº: ATCC Nº: CRL-2577 (lote ID No2019165) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human colon

**MORFOLOGÍA** epitelial, adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium,. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%. Temperature: 37°C. Atmosphere: air, 95%; carbon dioxide (CO<sub>2</sub>), 5%

**NUMERO DE PASE:** desconocido

**Receptor Expression:** urokinase receptor (u-PAR)

**Tumorigenic; Si**

**EFECTOS:** Yes, in nude mice  
Yes, in soft agar

**CARIOTIPO:**

**DNA PROFILE: STR-PCR Data:** Amelogenin: X

CSF1PO: 8, 10, 11

D13S317: 8, 11

D16S539: 12, 13

D5S818: 11, 13, 15

D7S820: 8, 10

THO1: 6, 10

TPOX: 11

vWA: 15, 16, 17, 22

**ONCOGEN:** p53 + (wild type)

**PROCEDIMIENTO DE SUBCULTIVO:**

Volumes used in this protocol are for 75 cm<sup>2</sup> flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin-0.53% (w/v) EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).

Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C

Subculture Ratio: 1:3 to 1:12

Medium Renewal: Every 2 to 3 days.

Note: For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 10 in Culture of Animal Cells, a manual of Basic Technique by R. Ian Freshney, 3rd edition, published by Alan R. Liss, N.Y., 1994

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.* **DEPOSITOR:** MC Hollander, AJ Fornace

#### **REFERENCIAS:**

Boyd D, et al. Determination of the levels of urokinase and its receptor in human colon carcinoma cell lines. Cancer Res. 48: 3112-3116, 1988. PubMed: [2835152](#)

Smith ML, et al. Involvement of the p53 tumor suppressor in repair of u.v.-type DNA damage. Oncogene 10: 1053-1059, 1995. PubMed: [7700629](#)

Brattain MG, et al. Heterogeneity of human colon carcinoma. Cancer Metastasis Rev. 3: 177-191, 1984. PubMed: [6437669](#)

Bhat MK, et al. Tumor suppressor p53 is a negative regulator in thyroid hormone receptor signaling pathways. J. Biol. Chem. 272: 28989-28993, 1997. PubMed: [9360971](#)

Smith ML, et al. Involvement of the p53 tumor suppressor in repair of u.v.-type DNA damage. Oncogene 10: 1053-1059, 1995. PubMed: [7700629](#)

**COMENTARIOS:** RKO cells contain wild-type p53 but lack endogenous human thyroid receptor nuclear receptor (h-TRbeta1). The level of p53 protein is higher in RKO (ATCC [CRL-2577](#)) cells than in RKO-E6 (ATCC [CRL-2578](#)) cells. The RKO cell line is the parental cell line (isogenic) of RKO-E6 (ATCC [CRL-2578](#)) and RKO-A545-1 (ATCC [CRL-2579](#)). It can be used as the control cell line for investigating the effects of p53 and gadd45 on cellular parameters. RKO is a poorly differentiated colon carcinoma cell line developed by Michael Brattain

**RPMI2650**

**REFERENCIA N°: ATCC N°:CCL-30** (lote No70045104) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** *Homo sapiens*, human, Nose; Nasal septum; Squamous Cell Carcinoma, Pleural effusion

**MORFOLOGÍA** epitelial, Adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% NEAA + 1 mM sodium pyruvate + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y

CSF1PO: 9,11

D13S317: 11,12

D16S539: 11,12

D5S818: 12,13

D7S820: 8,11

THO1: 6,8

TPOX: 8

vWA: 16,18

**GENES EXPRESSED:** mucoid; keratin

**ISOENZIMES:** G6PD, B

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used in this protocol are for 75 cm<sup>2</sup> flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin-0.53mM EDTA solution to remove all traces of serum, which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes). **Note:** To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting. Add appropriate aliquots of the cell suspension to new culture vessels.
5. Incubate cultures at 37°C.

**NOTE:** Cells attach in clusters. Cells will pile and the culture does not get 100% confluent.

**Subcultivation Ratio:** A subcultivation ratio of 1:2 to 1:4 is recommended  
**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** GE Moore

**REFERENCIAS:** CONSULTAR LA WEB DE LA ATCC

**COMENTARIOS:** RPMI 2650 is a cell line exhibiting epithelial morphology from the nasal septum of a 52-year-old, male patient with squamous cell carcinoma. This cell line was deposited by GE Moore and can be used in cancer research, and toxicology.

Aplicaciones in3D cell culture, Cancer research, High-throughput screening, Toxicology.

The cells are positive for keratin by immunoperoxidase staining.

**Virus susceptibility:** Human poliovirus 1, Herpes simplex virus, Vesicular stomatitis, Glasgow (Indiana), Vesicular stomatitis, Orsay (Indiana)

**RT4**

**REFERENCIA N°: ATCC N°:HTB-2** (lote No 58078661) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human; Urinary bladder; Transitional Cell Papilloma

**MORFOLOGÍA:** epitelial; Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated McCoy's 5a Medium Modified, Catalog No. 30-2007. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:**

**CARIOTIPO:** modal number = 49; range = 42 to 55. The cell line is aneuploid human male, with chromosome counts in the near-diploid range. However, the near-tetraploid

population may become predominant within very few passages. The 48 and 49 chromosome karyotypes had a single X and a single Y chromosome. Three of the karyotypes at higher ploidy had two X chromosomes and a single Y chromosome. Four marker chromosomes were identified: del(6)(q21), del(10)(p11), 14p+, 12p+. Marker chromosome M4 was not seen in the karyotypes prepared from higher ploidy metaphases.

**ANTIGEN EXPRESSION:** HLA A25(10), A3, B12, Cw3; Blood Type O

**GENES EXPRESSED:**

**ISOENZYMES:**

AK-1, 1  
ES-D, 1-2  
G6PD, B  
GLO-I, 1-2  
Me-2, 1  
PGM1, 1-2  
PGM3, 1-2

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y  
CSF1PO: 10,12  
D13S317: 8  
D16S539: 9  
D5S818: 11,12  
D7S820: 9,12  
TH01: 9,9.3  
TPOX: 8,11  
vWA: 14,17  
D3S1358: 15  
D21S11: 30,32.2  
D18S51: 15,17  
Penta\_E: 7,10  
Penta\_D: 12  
D8S1179: 13,15  
FGA: 22,24  
D19S433: 13  
D2S1338: 18,19

**PROCEDIMIENTO DE SUBCULTIVO:** Remove medium, and rinse with 0.25% trypsin, 0.53 mM EDTA solution. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks.

**Subcultivation Ratio:** A subcultivation ratio of 1:2 to 1:4 is recommended

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** C Rigby, LM Franks; Human Tumor Cell Bank

**REFERENCIAS:** O'Toole C Human bladder cancer lines: HLA Class I and Class II antigen expression and susceptibility to cytostatic and cytotoxic effects in vitro *In: O'Toole C In vitro models for cancer research* vol. IV Boca Raton, FLCRC Press pp. 103-125.

O'Toole C, et al. Cellular immunity to human urinary bladder carcinoma. I. Correlation to clinical stage and radiotherapy. *Int. J. Cancer* 10: 77-91, 1972. PubMed: [4196436](#)

Fogh J, et al. Absence of HeLa cell contamination in 169 cell lines derived from human tumors. *J. Natl. Cancer Inst.* 58: 209-214, 1977. PubMed: [833871](#)

Goodfellow M, et al. One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. *J. Natl. Cancer Inst.* 59: 221-226, 1977. PubMed: [77210034](#)

Lasfargues EY, et al. Isolation of two human tumor epithelial cell lines from solid breast carcinomas. *J. Natl. Cancer Inst.* 61: 967-978, 1978. PubMed: [212572](#)

**COMENTARIOS:** RT4 is a cell line exhibiting epithelial morphology that was isolated from urinary bladder tissue derived from a 63-year-old, White, male patient with transitional cell papilloma. Use these cells in your immuno-oncology research.

This cell line is a transfection host.

A contamination with Mycoplasma orale was cured in October 1971.

## **Saos-2**

**REFERENCIA N°: ECACC N°: 89050205 (lote CB No) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human primary osteogenic sarcoma, human, bone

**MORFOLOGÍA** Epithelial-like, Adherent

**MEDIO DE CULTIVO:** McCoy's 5a + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** 2n = 46, (P1) Hyperploid to hypopentaploid

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 10  
D13S317: 12,13  
D16S539: 12,13  
D5S818: 12  
D7S820: 8,10  
THO1: 6,9  
TPOX: 8  
vWA: 18

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at  $1-4 \times 10^4$  cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:**

**PATENTS:** None specified by Depositor

**REFERENCIAS:** Fogh J/ Trempe G (1975) In; Human Tumour Cells In Vitro (ed) Fogh J, Plenum Press, NY pp115-159; J Nat Cancer Inst 1977;58:209; J Nat Cancer Inst 1977;59:221

**COMENTARIOS:** Reported to have been derived from an 11 year old female Caucasian. The patient was treated with RTG, methotrexate, adriamycin, vincristine, cytoxan, and aramycin-C. HLA cell line phenotype: A2,3;Bw16,w47.

**SCC4**

**REFERENCIA N°: ECACC N°: 89062002(LOTE07I016) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la

procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human tongue squamous carcinoma

**MORFOLOGÍA:** Epithelial, Adherent

**MEDIO DE CULTIVO:** DMEM:HAMS F12 (1:1) + 2mM Glutamine + 10% Foetal Bovine Serum (FBS) + 0.4 ug/ml hydrocortisone

**CARIOTIPO:**

**PROCEDIMIENTO DE SUBCULTIVO:** Split confluent cultures 1:3 to 1:4 i.e. seeding at 1-4 x10,000 cells/cm<sup>2</sup> using trypsin/EDTA; 5% CO<sub>2</sub>; 37°C

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**REFERENCIAS:** Rheinwald & Beckett (1981). Tumorigenic keratinocyte lines requiring anchorage and fibroblast support cultured from human squamous cell carcinomas. Cancer Res 41: 1657-1663

**COMENTARIOS:** Derived from a human squamous cell carcinoma (SCC) of the tongue from a 55-year-old male. SCC-4 cells have been reported to form colonies in semi-solid medium, and are not induced to differentiate by anchorage deprivation. Growth is enhanced by use of a feeder layer of 3T3 swiss cells.

## **SCC-9**

**REFERENCIA N°: ECACC N°: 89062003 (lote No07I016) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human squamous carcinoma of the tongue

**MORFOLOGÍA** epitelial

**MEDIO DE CULTIVO:** DMEM:HAMS F12 (1:1) + 2mM Glutamine + 10% Foetal Bovine Serum (FBS) + 0.4 ug/ml hydrocortisone + 0.5mM sodium pyruvate

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Split confluent cultures 1:3 to 1:6 using trypsin/EDTA;5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:**

**REFERENCIAS:** Rheinwald & Beckett (1981). Tumorigenic keratinocyte lines requiring anchorage and fibroblast support cultures from human squamous cell carcinomas. Cancer Res 41: 1657-1663

**COMENTARIOS:** 25 year old male. Growth is enhanced by use of a feeder layer of X-irradiated STO cells.

**SF9**

**REFERENCIA N°: ECACC N°: 89070101 (lote No02E004) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Insect, ovary

**MORFOLOGÍA:** Spherical, Adherent

**MEDIO DE CULTIVO:** TC100 + 2mM Glutamine. (The medium can be supplemented with 10% Foetal Bovine Serum (FBS) if required).

NUMERO DE PASE:

**CARIOTIPO:** Not specified

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 3x100,000 to 1x1,000,000 cells/ml; 27°C. Gently resuspend cells in old culture medium by dislodging the cells by pipetting, or gentle agitation, and resuspend in fresh medium. Cells should stick to the culture flask. Freeze in 9% DMSO/91% FBS. Cultures may take up to 10 days to recover normal growth characteristics following cryopreservation and resuscitatio

**NIVEL DE BIOSEGURIDAD:** Hazard Group (ACDP) 21. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Obtained from ATCC (ATCC CRL 1711)

**REFERENCIAS:** Vaughn JL, Goodwin RH, Tompkins GJ, McCawley P. 1977 The establishment of two cell lines from the insect *Spodoptera frugiperda* (Lepidoptera; Noctuidae). *In Vitro*. 13(4):213-7 [PMID: 68913](#).

Smith GE, Ju G, Ericson BL, Moschera J, Lahm HW, Chizzonite R, Summers MD. 1985 Modification and secretion of human interleukin 2 produced in insect cells by a baculovirus expression vector. *Proc Natl Acad Sci U S A*. 82(24):8404-8 [PMID: 3878519](#).

**COMENTARIOS:** Derived from pupal ovarian tissue of *spodoptera frugiperda*. The cells are highly susceptible to Baculovirus infection and are used in the production of protein products genetically manipulated into Baculovirus vector systems.

Applications in Virus studies: Baculovirus.

## SH-SY5Y

**REFERENCIA N°: ECACC N°: 94030304** (lote n° 981033) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human neuroblastoma

**MORFOLOGÍA:** Neuroblast Adherent

**MEDIO DE CULTIVO:** Ham's F12:EMEM (EBSS) (1:1) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 15% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 23

**CARIOTIPO:** no especificado

**DEPOSITOR:** Dr PFT Vaughan, Institute for Cardiovascular Research, University of Leeds

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO2. Cuando se subcultivan, pueden tardar días en volver a adherirse. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

## NIVEL DE BIOSEGURIDAD: 1

**REFERENCIAS:** Biedler JL, Roffler-Tarlov S, Schachner M, Freedman LS 1978 Multiple neurotransmitter synthesis by human neuroblastoma cell lines and clones. *Cancer Res.*38(11 Pt 1):3751-7. PMID: 29704. Ross RA, Spengler BA, Biedler JL. 1983 Coordinate morphological and biochemical interconversion of human neuroblastoma cells. *J Natl Cancer Inst.*71(4):741-7. PMID: 6137586.

Jalava AM, Heikkilä J, Akerlind G, Pettit GR, Akerman KE. 1990 Effects of bryostatins 1 and 2 on morphological and functional differentiation of SH-SY5Y human neuroblastoma cells. *Cancer Res.*; 50(11):3422-8. PMID: 2334938. Pahlman S, Meyerson G, Lindgren E, Schalling M, Johansson I. 1991 Insulin-like growth factor I shifts from promoting cell division to potentiating maturation during neuronal differentiation. *Proc Natl Acad Sci U S A.* 88(22):9994-8. PMID: 1946468. Lopes FM, Schröder R, da Frola ML Jr, Zanotto-Filho A, Müller CB, Pires AS, Meurer RT, Colpo GD, Gelain DP, Kapczinski F, Moreira JC, Fernandes Mda C, Klamt F. 2010 Comparison between proliferative and neuron-like SH-SY5Y cells as an in vitro model for Parkinson disease studies. *Brain Res.* 14;1337:85-94. PMID: 20380819. Encinas M, Iglesias M, Liu Y, Wang H, Muhaisen A, Ceña V, Gallego C, Comella JX. 2000 Sequential treatment of SH-SY5Y cells with retinoic acid and brain-derived neurotrophic factor gives rise to fully differentiated, neurotrophic factor-dependent, human neuron-like cells. *J Neurochem.* 75(3):991-1003. PMID: 10936180. Constantinescu R, Constantinescu AT, Reichmann H, Janetzky B. 2007 Neuronal differentiation and long-term culture of the human neuroblastoma line SH-SY5Y. *J Neural Transm Suppl.* 2007 ;(72):17-28. PMID: 17982873

**COMENTARIOS:** SH-SY5Y is a thrice-cloned sub-line of bone marrow biopsy-derived line SK-N-SH (ECACC catalogue no. 86012802). SH-SY-5Y has dopamine-beta-hydroxylase activity and can convert glutamate to the neurotransmitter GABA. Will form tumours in nude mice in approximately 3-4 weeks. The loss of neuronal characteristics has been described with increasing passage numbers. Therefore it is recommended to verify specific characteristics such as noradrenalin uptake or neuronal markers routinely.

### SKBR-3

**REFERENCIA N°: ATCC N°: ATCC® HTB-30 (lote5006457) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

The cells are distributed for research purposes only. The Memorial Sloan-Kettering Cancer Center releases the cells subject to the following: 1.) The cells or their products must not be distributed to third parties. Commercial interests are the exclusive property of Memorial Sloan-Kettering Cancer Center. 2.) Any proposed commercial use of these cells must first be negotiated with the Office of Technology Development, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10065. Contact email: [otd@mskcc.org](mailto:otd@mskcc.org)

**DESCRIPCION CELULAR:** mammary gland/breast; derived from metastatic site: pleural effusion

**MORFOLOGÍA** epithelial

**MEDIO DE CULTIVO:** McCoy's 5a Medium Modified + 10% Suero bovino fetal

**NUMERO DE PASE:** 42

**CARIOTIPO:** This is a hypertriploid human cell line with the modal chromosome number of 84, occurring in 34% of cells. Cells having 80 chromosomes also occurred at a high rate (28%); the higher ploidy cells occurred at 7.3%. This cell line has a very complex chromosome composition. Thirty-five to 40% of chromosomes in a cell complement with a modal chromosome number of 84 consisted of structurally altered marker chromosomes. Several markers are longer than chromosome N1. The origins of most of these markers, however, are not clear. Some markers may have at least three individual chromosome segments. The markers [i.e., ?der(1)t(1;21) (p13;q21) [or ?t(1q21q)], ?del(2) (q13), and t(7pter--cen--?)], present in some cells only] were the only ones in which portions of chromosome segments could be identified. Most cells had about three normal X chromosomes and five or more N7. The structurally normal N1, N14 and N17 were generally absent

**ANTIGENOS DE EXPRESIÓN:** Blood Type A; Rh+; HLA A11, Bw22(+/-), B40, B18

**STR PROFILE:**

Amelogenin: X  
CSF1PO: 12  
D13S317: 11,12  
D16S539: 9  
D5S818: 9,12  
D7S820: 9,12  
THO1: 8,9  
TPOX: 8,11  
vWA: 17

**ISOENZIMAS:** AK-1, 1-2  
ES-D, 1  
G6PD, B  
GLO-I, 2  
PGM1, 1-2  
PGM3, 1

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** G Trempe, LJ Old

**REFERENCIAS:** Fogh J. Human tumor cells in vitro. New York: Plenum Press; 1975. Trempe GL. Human breast cancer in culture. Recent Results Cancer Res. 57: 33-41 , 1976. PubMed: [1013510](#)  
Fogh J, et al. Absence of HeLa cell contamination in 169 cell lines derived from human tumors. J. Natl. Cancer Inst. 58: 209-214, 1977. PubMed: [833871](#)  
Fogh J, et al. One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. J. Natl. Cancer Inst. 59: 221-226, 1977. PubMed: [327080](#)  
Pollack MS, et al. HLA-A, B, C and DR alloantigen expression on forty-six cultured human tumor cell lines. J. Natl. Cancer Inst. 66: 1003-1012, 1981. PubMed: [7017212](#)  
Hudziak RM, et al. Monoclonal antibodies directed to the Her2 receptor. US Patent 5,677,171 dated Oct 14 1997  
Littlewood-Evans AJ, et al. The osteoclast-associated protease cathepsin K is expressed in human breast carcinoma. Cancer Res. 57: 5386-5390, 1997. PubMed: [9393764](#)

Chavany C, et al. p185erbB2 binds to GRP94 in vivo. J. Biol. Chem. 271: 4974-4977, 1996. PubMed: [8617772](#)

**COMENTARIOS:** This cell line was derived by G. Trempe and L. J. Old in 1970 from pleural effusion cells of a patient, a White, Caucasian female, age 43, blood type A+, who had been treated with radiation, steroids, cytoxan and 5-fluorouracil. Ultrastructural features include microvilli and desmosomes, glycogen granules, large lysosomes, bundles of cytoplasmic fibrils. The SK-BR-3 cell line overexpresses the HER2/c-erb-2 gene product. This cell line is suitable as a transfection host.

### **SK-MEL-31**

**REFERENCIA N°: ATCC N° HTB-73: (lote No60073869) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human cells; Skin; Malignant Melanoma

**MORFOLOGÍA:** epithelial cell; Adherent

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:** 28

**CARIOTIPO:** modal number = 82; range = 74 to 84. This is a hypotetra-/hypertriploid human cell line. The modal chromosome number is 82 occurring at 16% with polyploidy at 10.3%. The markers del(1)(q23), t(1q10p), del(7)(p13), t(7p18q), i(21q) and 5 others are common to all cells. They are all paired in most cells. N1 and N18 are absent, N11 is single-copied, and N6, N7, N8 and N16 are generally 4-copied (many cells also had 5 copies each for N7 and N8). The X is paired.

**ANTIGEN EXPRESSION:** HLA A3,A29, Bw35,B40, Cw3,Cw4, DRw4

**GENES EXPRESSED:**

**ISOENZYMES:**

AK-1, 1  
ES-D, 1  
G6PD, B  
GLO-I, 1-2  
PGM1, 1  
PGM3, 1

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X  
CSF1PO: 10  
D13S317: 12  
D16S539: 13  
D5S818: 11,13  
D7S820: 10  
TH01: 6,9

TPOX: 8,11  
vWA: 16,18  
D3S1358: 17,18  
D21S11: 30,32.2  
D18S51: 15  
Penta\_E: 12,18  
Penta\_D: 9  
D8S1179: 12,14  
FGA: 24  
D19S433: 13,14.2  
D2S1338: 18,20

1. **PROCEDIMIENTO DE SUBCULTIVO:** Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:4 to 1:6 is recommended

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** T Takahashi; Human Tumor Cell Bank

**REFERENCIAS:** Pollack MS, et al. HLA-A, B, C and DR alloantigen expression on forty-six cultured human tumor cell lines. J. Natl. Cancer Inst. 66: 1003-1012, 1981. PubMed: [7017212](#)

Carey TE, et al. Cell surface antigens of human malignant melanoma: mixed hemadsorption assays for humoral immunity to cultured autologous melanoma cells. Proc. Natl. Acad. Sci. USA 73: 3278-3282, 1976. PubMed: [1067619](#)

Guldberg P, et al. Disruption of the MMAC1/PTEN gene by deletion or mutation is a frequent event in malignant melanoma. Cancer Res. 57: 3660-3663, 1997. PubMed: [9288767](#)

**COMENTARIOS:** SK-MEL-31 are epithelial cells that were isolated from the skin of a female patient with malignant melanoma. This product has applications in cancer research.

## **SK-N-SH**

**REFERENCIA N°: ECACC N°: 86012802 (lote 00C032) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian neuroblastoma

**MORFOLOGÍA:** Epitelial

**TEJIDO:** Neural (bone marrow metastasis)

**MEDIO DE CULTIVO:** Ham's F12 o DMEM o MEM + 2 mM GLUTAMINA + 10% Suero bovino fetal

**NUMERO DE PASE:**

**CARIOTIPO:** 2n = 46, modal no. 47

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO2. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia.

**NIVEL DE BIOSEGURIDAD:** 2

**DEPOSITOR:** Dr M Shaw, ICI Pharmaceuticals Ltd

**REFERENCIAS:** In Vitro 1973; 7:410.

Gilbert LC , Wachsmann JT . Characterization and partial purification of the plasminogen activator from human neuroblastoma cell line, SK-N-SH. A comparison with human urokinase. Biochim. Biophys. Acta 704: 450-460,1982.

Spengler BA , et al.. Morphology and growth, tumorigenicity, and cytogenetics of human neuroblastoma cells established in vitro. In Vitro 8: 410, 1973.

Fogh J , et al. Absence of HeLa cell contamination in 169 cell lines derived from human tumors. J. Natl. Cancer Inst. 58: 209-214, 1977.

Bluestein HG . Neurocytotoxic antibodies in serum of patients with systemic lupus erythematosus. Proc. Natl. Acad. Sci. USA 75: 3965-3969, 1978.

Seeger RC , et al. Morphology, growth, chromosomal pattern and fibrinolytic activity of two new human neuroblastoma cell lines. Cancer Res. 37: 1364-1371,1977.

Yan SD , et al. Amyloid-beta peptide-Receptor for Advanced Glycation Endproduct interaction elicits neuronal expression of macrophage-colony stimulating factor: A proinflammatory pathway in Alzheimer disease. Proc. Natl. Acad. Sci. USA 94: 5296-5301, 1997.

Tsao H , et al. Novel mutations in the p16/CDKN2A binding region of the Cyclin-dependentKinase-4gene.CancerRes.58:109-113,1998.

Rostomily RC , et al. Expression of neurogenic basic helix-loop-helix genes in primitive neuroectodermal tumors. Cancer Res. 57: 3526-3531, 1997.

Chang YE , et al. Properties of the protein encoded by the UL32 open reading frame of herpes simplex virus 1. J. Virol. 70: 3938-3946, 1996.

He B , et al. The carboxyl terminus of the murine MyD116 gene substitutes for the corresponding domain of the gamma134.5 gene of herpes simplex virus to preclude the premature shutoff of total protein synthesis in infected human cells. J. Virol. 70:84-90, 1996.

Yoshikawa T , et al. Downstream regulatory elements increase acute and latent herpes simplex virus type 2 latency-associated transcript expression but do not influence recurrence phenotype or establishment of latency. J. Virol. 70: 1535-1541, 1996.

**COMENTARIOS:** Establecida desde una metástasis de médula ósea de una niña de 4 años con neuroblastoma.

Es una línea de origen humano. No hay evidencia de la presencia de virus infecciosos ni productos tóxicos. Sin embargo, se recomienda que estos cultivos se manipulen como contaminantes Categoría 2 de la ADCP

### **SP2/0-Ag14**

**REFERENCIA N°: ECACC N°: 85072401 (lote No CB2697) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse, Spleen, Myeloma

Sp2/0-Ag14 is a non-Ig-secreting or synthesising line derived from a cell line created by fusing a BALB/c mouse spleen cell and the mouse myeloma P3X63Ag8. Resistant to 8-azaguanine at 20ug/ml and does not survive in HAT containing media. HAT sensitive mouse myeloma hybrid suitable for use as a hybridoma fusion partner - in this sense, functionally it is a myeloma cell line and often referred to as such in the literature

**MORFOLOGÍA** Lymphoblastoid, Suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 3-9x10<sup>6</sup> cells/ml; 5% CO<sub>2</sub>; 37°C. HAT sensitive.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Dr P Wilton-Smith, PHLS CAMR, Porton Down, Salisbury.  
(ATCC CRL 1581)

**REFERENCIAS:** Shulman M, Wilde CD, Köhler G 1978 A better cell line for making hybridomas secreting specific antibodies. Nature. 276(5685):269-70 **PMID: 714156**. Ozato K, Sachs DH 1981 Monoclonal antibodies to mouse MHC antigens. III. Hybridoma antibodies reacting to antigens of

the H-2b haplotype reveal genetic control of isotype expression. J Immunol. 126(1):317-21 [PMID: 6935293](#).

## COMENTARIOS:

**SR**

**REFERENCIA N°: ATCC N°: CRL-2262** (lote No70020939) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, pleural effusion

**MORFOLOGÍA** lymphoblast, Suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

### CARIOTIPO:

DNA PROFILE: STR-PCR Data:

Amelogenin: X,Y

CSF1PO: 14,15

D13S317: 11

D16S539: 11,13

D5S818: 11

D7S820: 9,12

THO1: 6,7

TPOX: 8,11

vWA: 17,18

**Mycoplasma contamination:** Not detected

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at  $1 - 2 \times 10^5$  viable cells/mL. Maintain cell density between  $1 \times 10^5$  and  $1 \times 10^6$  viable cells/mL.

**Medium Renewal:** 2 to 3 times a week.

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S.

Department of Health and Human Services. It is your responsibility to understand the hazards

associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

**DEPOSITOR:** M Beckwith

**ANTIGEN EXPRESSION:** Hle-1 +; HLA DQ +; HLA DR +; CD25 +; CD19 -; CD20 -; CD21 -; CD22 -; T cell receptor (TCR) -

**REFERENCIAS:** Consult ATCC

**COMENTARIOS:** produces large Cell Immunoblastic Lymphoma3D cell culture. Immunology. SR is a human lymphoma cell line originated in 1983 by Walter J. Urba and Dan L. Longo. SR is of undetermined cellular origin because it expresses no markers unique to B, T, natural killer (NK) or monocyte-lineages. Exposure of SR cells to protein kinase C activating phorbol esters such as PMA and PdBu do not induce growth inhibition. SR cells have been reported to be Epstein-Barr virus genome negative.

## **STC-1**

**REFERENCIA: N° ATCC: CRL-3254 (lote 70017453) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** The STC-1 cell line was derived from the intestinal tumors of RIP1Tag2/Rip2pyST1 double transgenic mice.

*Mus musculus*, mouse. C57B1/6J.

intestinal neuroendocrine cell

Carcinoma; Invasive Small Intestinal Neuroendocrine

**MORFOLOGÍA** Adherent. Epithelial-like

**MEDIO DE CULTIVO:** The base medium for this cell line is Dulbecco's Modified Eagle's Medium. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:**

**CARIOTIPO:**

**DNA PROFILE:** STR-PCR Data:

**GENES EXPRESSED:** Secretin

**PROCEDIMIENTO DE SUBCULTIVO:** Cells must be subcultured when they reach ~70% confluence, or else they start to come off the flask into suspension.

Volumes used in this protocol are for 75 cm<sup>2</sup> flasks; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium. Briefly rinse the cell layer with Ca<sup>++</sup>/Mg<sup>++</sup> free Dulbecco's phosphate-buffered saline (D-PBS) or 0.05% Trypsin – 0.02% EDTA solution to remove all traces of serum which contains trypsin inhibitor.
2. Add 2.0 to 3.0 ml of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes). **Note:** To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
3. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.
4. Transfer cell suspension to a centrifuge tube and spin at approximately 125 xg for 5 to 10 minutes.
5. Discard supernatant. Resuspend the cell pellet in fresh growth medium.
6. Add appropriate aliquots of the cell suspension to new culture vessels. Incubate cultures at 37°C.

**Subcultivation Ratio:** 1:3 to 1:5 is recommended.

**Medium Renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Douglas Hanahan, PhD Cold Spring Harbor Laboratory.

Year of origin:1990

**REFERENCIAS:** oxic effects of polystyrene microparticles on murine macrophages and epithelial cells

Julia Rudolph, Matthias Völkl, ..., Ruth Freitag

Murine cell lines: Macrophages J774A.1 [from ascites, TIB-67, population doubling time: 17 h (according to supplier information)], **intestinal epithelial-like cells STC-1** (CRL3254, population doubling time: 54 h ) and hepatic epithelial cells BNL CL.2 [TIB-73, population doubling time: 40 h (according to supplier information)] were obtained from the **American Type Culture Collection** (ATCC, Manassas, USA). [More](#)

**COMENTARIOS:** This cell line may be a useful model for human neuroendocrine neoplasms of the gut, and useful tools for studying hormone secretin.

The STC-1 cell line was derived from the intestinal tumors of double transgenic mice. Transgenic mice harboring a hybrid gene linking the rat insulin promoter (RIP) to polyoma small T (PyST) antigen were mated with transgenic mice harboring rat insulin promoter (RIP) linked to SV40 early region (Tag) creating off-spring harboring both transgenes (double transgenics). These mice were found to have frequent intestinal tumors in addition to pancreatic Beta-cell tumors. Gene expression studies suggested that the intestinal and pancreatic tumors arose as separate entities. The STC-1 cell line produces the hormone secretin. This cell line may be a useful model for human endocrine neoplasms of the gut.

## **SU-DHL-1**

**REFERENCIA N°: ATCC N°:CRL-2955** (lote No70035861) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** histiocytic cell, *Homo sapiens*, human, Lymph node

**MORFOLOGÍA:** lymphoblast-like, Suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** 88 chromosomes; t(2;5)(p23;q35) translocation

**ONCOGENE:** C-fms (proto-oncogene); bcl-6+ (c-onc)

**ANTIGEN EXPRESSION:** Monocyte Marker: CD163+

Lymphoid Marker: CD45-

Progenitor Markers: CD10-, CD34-

Activation Markers: CD30+, CD25+, CD70+, CD71+, CD80-, HLA-DR+, CD45-

T-Cell Markers: CD2-, CD3-, CD4-, CD5+, CD7-, CD8-

B-Cell Markers: CD19-, CD20-, CD21-, CD22-

Myelomonocytic Markers: CD11b-, CD11c-, CD13-, CD14-, CD15-, CD33-

**GENES EXPRESSED:** fusion gene NPM-ALK (p80)+; anaplastic lymphoma kinase (ALK)+; Ig not expressed

**EXPRESSION MARKERS:** CFS-1, expressed; (IL-1-R; IL-2-R $\alpha$ ; IL-6-R; TNF $\alpha$ -R; & c-fms), expressed; Surface Receptors: (Fc; IgMEAC; IgGEA; & E), not expressed

**DNA PROFILE: STR-PCR Data:**

D5S818: 11, 12

D13S317: 9, 13

D7S820: 10, 13

D16S539: 11, 12

vWA: 15, 17

THO1: 6, 7

Amelogenin: X Y

TPOX: 8

CSF1PO: 12

**PROCEDIMIENTO DE SUBCULTIVO:** cultures can be maintained by the addition of fresh medium. An inoculum of  $8.0 \times 10^4$  to  $2.0 \times 10^5$  cells/mL is recommended. Subculture when the cell concentration is between  $1.0 \times 10^6$  and  $1.5 \times 10^6$  cells/mL.

**Subcultivation ratio:** A subcultivation ratio of 1:4 to 1:12 is recommended.

**Interval:** As needed.

**Medium renewal:** every 2 to 4 days

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** A Epstein

**REFERENCIAS:** Consultar la web de ATCC.

**COMENTARIOS:** SU-DHL-1 is a histiocytic cell that was isolated from the lymph node of a White, 10-year-old, male patient with large cell lymphoma. This cell line was deposited by A Epstein and can be used in immunology research.

The availability of a permanently established human neoplastic cell line as the source of this type C RNA virus should greatly facilitate studies of its biological significance. Evidence has recently been obtained that the virus can induce proliferation of normal human monocytes and histiocytes in vitro. The cells are surface Ig negative (sIg-).

The cells are non-specific esterase, acid phosphatase and oil red O positive.

The cells are periodic acid Schiff negative.

These cells phagocytose *Candida albicans* and latex particles.

The cells are reported to be very weakly E - rosette positive.

ATCC confirmed this cell line is negative for the presence of Epstein-Barr viral DNA sequences via PCR.

## **SU-DHL-5**

**REFERENCIA N°: ATCC N°: CRL-2958** (lote No 70035862) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, B lymphocyte, Large Cell Lymphoma

**MORFOLOGÍA:** Lymphoblast-like

**MEDIO DE CULTIVO:** the base medium for this cell line is ATCC-formulated RPMI-1640 Medium, ATCC [30-2001](#). To make the complete growth medium, add the following components to the base medium: fetal bovine serum (ATCC [30-2020](#)) to a final concentration of 10%.

It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the complete growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).

**NUMERO DE PASE:**

**CARIOTIPO:**

**DNA PROFILE: STR-PCR Data:**

D5S818: 12, 15  
D13S317: 12  
D7S820: 10  
D16S539: 11, 13  
vWA: 17  
TH01: 6, 9  
Amelogenin: X  
TPOX: 8  
CSF1PO: 11, 13

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by addition of fresh medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at  $5 \times 10^4$  to  $1 \times 10^5$  viable cells/ mL. Maintain cultures at a cell concentration below  $5 \times 10^5$  viable cells/ mL.

**Medium renewal:** Two to three times weekly

**Note:** Culture can be maintained by the addition of fresh medium or re-seeding a new flask with cells in culture.

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** A Epstein

**REFERENCIAS:** consultar la web de la ATCC

**COMENTARIOS:** SU-DHL-5 is a B lymphocyte cell line that was isolated in 1978 from the lymph node of a 17-year-old, White female with large cell lymphoma. It has applications in immunology research

### **SU-DHL-6**

**REFERENCIA N°: ATCC N°CRL-2959:** (lote No63681082) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** B lymphocyte, *Homo sapiens*, human

**MORFOLOGÍA:** lymphoblast-like

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** This is a pseudodiploid cell line with a modal chromosome number of 47, a polyploidy rate of approximately 9% and one copy of the X chromosome. No Y chromosome was observed in any of the analyzed cells. A derivative t(14;18)(q32;q21) chromosome was present in most of the examined cells. Other derivative chromosomes were generally consistent with previous studies, these include: del(6)(p23), del(9)(p21.1?), add(11)(q25), i(17q) [or t(6?;17)(p10;q10)?] and del(18)(q21)?. [PubMed: 3881165]

**DNA PROFILE: STR-PCR Data:**

D5S818: 12  
D13S317: 12,14  
D7S820: 10  
D16S539: 11,12  
vWA: 14,17  
THO1: 6,9.3  
TPOX: 11,12  
CSF1PO: 10  
Amelogenin: X

**GENE EXPRESSED:** monoclonal cytoplasmic immunoglobulin: IgM, lambda light chain

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by the addition of fresh medium. An inoculum of  $8 \times 10^4$  to  $3 \times 10^5$  cells/mL is recommended. Subculture when cell concentration is between  $7 \times 10^5$  and  $1 \times 10^6$  cells/mL.

**Subcultivation ratio:** A subcultivation ratio of 1:3 to 1:6 is recommended.

**Medium renewal:** Every 3 to 4 days

**Population doubling time:** Approximately 29 hrs

**NIVEL DE BIOSEGURIDAD:** 1. ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

**DEPOSITOR:** A Epstein, 1977

**REFERENCIAS:**

**COMENTARIOS:** SU-DHL-6 is a lymphoblast-like cell that was isolated from the peritoneal effusion of a White, 43-year-old, male patient with large cell lymphoma. This cell line was deposited by A Epstein in 1977.

The DHL cell lines were successfully established in continuous suspension culture from 10 patients with a histopathological diagnosis of diffuse histiocytic lymphoma (DHL).

All of the DHL cell lines were negative for the presence of Epstein-Barr virus (EBV) genomes. SU-DHL-6 possesses a t(14;18)(q32;q21) translocation and demonstrates an unexpected recombination within its heavy chain gene locus that may be the interchromosomal breakpoint. In SU-DHL-6, the t(14;18) translocation juxtaposes a truncated bcl-2 gene with J6 in a tail-to-head configuration.

The deregulated expression of the altered bcl-2 gene may play a critical role in the disordered growth and differentiation of follicular B cell lymphoma.

## **SUP-B15**

**REFERENCIA N°: ATCC N°: CRL-1929** (lote No70027315) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** B lymphoblast; *Homo sapiens*, human; Bone; Marrow

**MORFOLOGÍA** Suspension

**ENFERMEDAD:** Acute lymphoblastic leukemia ALL

**MEDIO DE CULTIVO:** Iscove's modified Dulbecco's medium with 4 mM L-glutamine adjusted to contain 1.5 g/L sodium bicarbonate and supplemented with 0.05 mM 2-mercaptoethanol, 80%; fetal bovine serum, 20%

**NUMERO DE PASE:**

**POPULATION DOUBLING TIME:** Approximately 18 hrs

**CARIOTIPO:** 46, XY; the following markers are present: t(9;22)(q34;q11), t(4;14) (p11;q24), der(4)t(1;4) (p11;q33), t(9;22) (q34;q11), der(10)t(3;10) (q25;q26), add(16); Philadelphia chromosome is present.

**ANTIGEN EXPRESSION:** CD1a -; CD2 -; CD3 -; CD4 -; CD5 -; CD8 -; CD10 +; CD13 +; CD38 +; CD71 +; HLA DR +

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X,Y

CSF1PO: 11,12

D13S317: 8,14

D16S539: 11,12

D5S818: 12,13

D7S820: 10,11

THO1: 6,9.3

TPOX: 8,9  
vWA: 15,17

**GENES EXPRESSED:** immunoglobulin (cytoplasmic)

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by addition or replacement of fresh medium. Establish new cultures at  $5 \times 10^5$  viable cells/mL and maintain between  $5 \times 10^5$  and  $2 \times 10^6$  cells/mL

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** SD Smith

**REFERENCIAS:** CONSULTAR EN LA ATCC

**COMENTARIOS:** This line was derived from malignant cells collected from the bone marrow of an 8 year old child with Philadelphia chromosome positive B cell ALL.

The cells express multiple B lineage markers, but do not express T cell markers.

The cells are positive for the beta-2-microglobulin, Leu12, My7 (CD13), OKT9 (CD71), OKT10 (CD38) and CALLA (CD10) antigens.

They are negative for CB1, Leu 1 (CD5), Leu2 (CD8), Leu3 (CD4), Leu4 (CD3), Leu5 (CD2), Leu6 (CD1a), Leu9, Leu M1 (CD15), My9 (CD33), surface immunoglobulin (slg -) and Epstein-Barr virus.

**SW480**

**REFERENCIA N°: ECACC N°: 87092801 (lote No CB No001019) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human, adenocarcinoma, colon

**MORFOLOGÍA:** Epithelial, adherent

**MEDIO DE CULTIVO:** L15 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** Not specified

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 13,14  
D5S818: 13  
D7S820: 8  
D13S317: 12  
D16S539: 13  
TH01: 8  
TPOX: 11  
vWA: 16

#### **PROCEDIMIENTO DE SUBCULTIVO:**

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** Obtained from ATCC (ATCC CCL 228)

**REFERENCIAS:** Cancer Res 1976;36:4562

**COMENTARIOS:** Derived from a grade 3-4 colon adenocarcinoma. The initial cultures contained a mixture of epithelial and bipolar cells, but subsequently epithelial cells predominated. The cells produce CEA.

#### **SW 620**

**REFERENCIA Nº ECACC:** 87051203 (lote nºCB nº 98L016) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCIÓN CELULAR** colon humano

**MORFOLOGÍA:** epitelial

**NUMERO DE PASE:** 89

**MEDIO DE CULTIVO:** L-15 + 2 mM GLUTAMINA + 10% Suero bovino fetal

**PROCEDIMIENTO DE SUBCULTIVO** Dividir los cultivos confluentes sembrando a 1:3 hasta 1:6 sembrando entre 2-4x10.000células/cm<sup>2</sup> usando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y SIN CO<sub>2</sub>

**CARIOTIPO:** 2n = 46; hiperdiploide **PRODUCTOS:** Antígeno carcinoembrionario (CEA)

**REFERENCIA:** Cancer Res 1976;36:4562

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**COMENTARIOS:** Established from the lymph node of a 51 year old Caucasian male. The cells synthesise small quantities of CEA and are highly tumorigenic in nude mice. The established cell line consists of small spherical and bipolar cells resembling microvilli. The Y chromosome could not be detected in this cell line by short tandem repeat (STR)-PCR analysis when tested at ECACC. It is a known phenomenon that due to the increased genetic instability of cancer cell lines the Y chromosome can be rearranged or lost resulting in lack of detection. The cell line is identical to the source provided by the depositor based on the STR-PCR analysis.

**SW837**

**REFERENCIA N°: ECACC N°: 91031104 (LOTE14A019) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian rectum adenocarcinoma

**MORFOLOGÍA:** Epithelial, Adherent

**MEDIO DE CULTIVO:** L15 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE: 68

**DNA PROFILE:**

STR-PCR Data:

Amelogenin:X

CSF1PO:10

D13S317:13

D16S539:12

D5S818:12

D7S820:9,12

THO1:9.3

TPOX:8,9

vWA: 15,16

**CARIOTIPO:** 2n = 46, hypodiploid

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at 2-4x10,000 cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; **No CO<sub>2</sub>**; 37°C. After thawing the 1st subculture interval may be 14-18 days. Medium change after 4 days.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK)

All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

ACDP Guidance: [Biological agents: Managing the risks in laboratories and healthcare premises.](#)

Hyperlinks to MSDS documents:

[Frozen cell cultures Material Safety Data Sheet](#)

[Growing cell cultures Material Safety Data Sheet](#)

[Nucleic acids derived from cell cultures Material Safety Data Sheet](#)

**DEPOSITOR:** Obtained from ATCC

**PATENTES:** None specified by Depositor

**REFERENCIAS:** Cancer Res 1976;36:4562

**COMENTARIOS:** Established from a Grade IV adenocarcinoma of the rectum of a 53 year old Caucasian male. The cells produce CEA and electron microscopy reveals brush borders. The Y chromosome could not be detected in this cell line by short tandem repeat (STR)-PCR analysis when tested at ECACC. It is a known phenomenon that due to the increased genetic instability of cancer cell lines the Y chromosome can be rearranged or lost resulting in lack of detection. The cell line is identical to the source provided by the depositor based on the STR-PCR analysis

## **T1-73**

**REFERENCIA N°: ATCC N°: CRL-7943 ( lote 58483263) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**Part of the NBL Cell Line Collection. This cell line is neither produced nor fully characterized by ATCC. We do not guarantee that it will maintain a specific morphology, purity, or any other property upon passage. [Please see the NBL Repository description.](#)**

**DESCRIPCION CELULAR:** osteosarcoma, humano

**MORFOLOGÍA:** fibroblasto y adherente

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, Catalog No. 30-2002. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**NUMERO DE PASE:** 31

**CARIOTIPO:**

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

## NIVEL DE BIOSEGURIDAD: 1

**REFERENCIAS:** Part of the NBL Cell Line Collection

**COMENTARIOS:** Part of the NBL Cell Line Collection. This cell line is neither produced nor fully characterized by ATCC. We do not guarantee that it will maintain a specific morphology, purity, or any other property upon passage. Part of the NBL Cell Line Collection. This cell line is neither produced nor fully characterized by ATCC. We do not guarantee that it will maintain a specific morphology, purity, or any other property upon passage.

[Please see the NBL Repository description.](#)

### T-24

**REFERENCIA ATCC N°:** HTB-4 (lote No57814092) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** human urinary bladder

**MORFOLOGÍA:** epitelial

**MEDIO DE CULTIVO:** McCoy's 5a Medium + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** hypodiploidy to hypopentaploidy; stemline 86; 2 to 4 telocentrics; 3 to 4 minutes, hypotetraploid to hypertetraploid with abnormalities including dicentrics, breaks, pulverization, minutes and telocentric markers

**DNA PROFILE: STR-PCR Data:**

Amelogenin: X  
CSF1PO: 10,12  
D13S317: 12  
D16S539: 9  
D5S818: 10,12  
D7S820: 10,11  
THO1: 6  
TPOX: 8,11  
vWA: 17

**ISOENZIMAS:**

AK-1, 1  
ES-D, 1  
G6PD, B  
GLO-I, 1  
Me-2, 1-2  
PGM1, 1  
PGM3, 1

**PRODUCTOS CELULARES:** tumor specific antigen

**Antigen Expression:** HLA A1, A3, B18, Bw35, Cw4, DRw2, Dw4

**Genes Expressed:** tumor specific antigen, HLA A1, A3, B18, Bw35, Cw4, DRw2, Dw4

**PROCEDIMIENTO DE SUBCULTIVO:** A subcultivation ratio of 1:3 to 1:8 is recommended. Remove medium, and rinse with 0.25% trypsin, 0.03% EDTA solution. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks.

**NIVEL DE BIOSEGURIDAD:** 1

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** C O'Toole

**REFERENCIAS:** O'Toole C Human bladder cancer lines: HLA Class I and Class II antigen expression and susceptibility to cytostatic and cytotoxic effects in vitro. In: O'Toole C In vitro models for cancer research. vol. IV Boca Raton, FLCRC Press. pp. 103-125.  
O'Toole C, et al. Cellular immunity to human urinary bladder carcinoma. I. Correlation to clinical stage and radiotherapy. Int. J. Cancer 10: 77-91, 1972. PubMed: [4196436](#)  
Williams BY, Schonbrunn A. Bombesin receptors in a human duodenal tumor cell line: binding properties and function. Cancer Res. 54: 818-824, 1994. PubMed: [8306345](#)  
Bubenik J, et al. Cellular and humoral immune responses to human urinary bladder carcinomas. Int. J. Cancer 5: 310-319, 1970. PubMed: [5452065](#)  
Fogh J, et al. Absence of HeLa cell contamination in 169 cell lines derived from human tumors. J. Natl. Cancer Inst. 58: 209-214, 1977. PubMed: [833871](#)  
Goodfellow M, et al. One hundred and twenty-seven cultured human tumor cell lines producing tumors in nude mice. J. Natl. Cancer Inst. 59: 221-226, 1977. PubMed: [77210034](#)  
Bubenik J, et al. Established cell line of urinary bladder carcinoma (T24) containing tumour-specific antigen. Int. J. Cancer 11: 765-773, 1973. PubMed: [4133950](#)  
Pollack MS, et al. HLA-A, B, C and DR alloantigen expression on forty-six cultured human tumor cell lines. J. Natl. Cancer Inst. 66: 1003-1012, 1981. PubMed: [7017212](#)  
Carey TE, et al. Cell surface antigens of human malignant melanoma: mixed hemadsorption assays for humoral immunity to cultured autologous melanoma cells. Proc. Natl. Acad. Sci. USA 73: 3278-3282, 1976. PubMed: [1067619](#)  
Fogh J. Cultivation, characterization, and identification of human tumor cells with emphasis on kidney, testis, and bladder tumors. Natl. Cancer Inst. Monogr. 49: 5-9, 1978. PubMed: [571047](#)  
Bellet D, et al. Malignant transformation of nontrophoblastic cells is associated with the expression of chorionic gonadotropin beta genes normally transcribed in trophoblastic cells. Cancer Res. 57: 516-523, 1997. PubMed: [9012484](#)  
Bubenik J, et al. Cellular immunity to renal carcinomas in man. Int. J. Cancer 8: 503-513, 1971. PubMed: [5137312](#)  
Bender CM, et al. Inhibition of DNA methylation by 5-Aza-2'-deoxycytidine suppresses the growth of human tumor cell lines. Cancer Res. 58: 95-101, 1998. PubMed: [9426064](#)

Ponton A, et al. The CD95 (APO-1/Fas) receptor activates NF-kappaB independently of its cytotoxic function. J. Biol. Chem. 271: 8991-8995, 1996. PubMed: [8621545](#)

**COMENTARIOS:** This cell line is a suitable transfection host. Leukocytes and sera from patients with transitional cell carcinoma were cytotoxic to T24 and related lines. Cells have a 19 hour generation time. Contains the ras (H-ras) oncogene.

## T47D

**REFERENCIA N°: ECACC N°: 85102201. SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human breast tumor

**MORFOLOGÍA** Epithelial

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamina+ 10% Suero bovino fetal

**NUMERO DE PASE:**

**CARIOTIPO:** 2n = 46, hypertriploid, modal no. 65

**DNA PROFILES:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 11,13  
D13S317: 12  
D16S539: 10  
D5S818: 12  
D7S820: 11  
THO1: 6  
TPOX: 11  
vWA: 14

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1 *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** Prof I Keydar, Faculty of Life Sciences, University of Tel Aviv

**REFERENCIAS:** Biochem 1981;200:315

Abaan OD, Polley EC, Davis SR, Zhu YJ, Bilke S, Walker RL, Pineda M, Gindin Y, Jiang Y, Reinhold WC, Holbeck SL, Simon RM, Doroshov JH, Pommier Y, Meltzer PS. 2013 The exomes of the NCI-60 panel: a genomic resource for cancer biology and systems pharmacology. Cancer Res. 73(14):4372-82. [PMID: 23856246](#).

**COMENTARIOS:** Established from the pleural effusion of a ductal carcinoma of the breast of a 54-year-old female. The cells carry receptors for a variety of steroids.

## T84

**REFERENCIA N°: ECACC N°:88021101** (lote CB NoCB2714) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA**. Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** human colon carcinoma

**MORFOLOGÍA** epitelial

**MEDIO DE CULTIVO:** Ham's F12 + DMEM (1:1) + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:** 59

**CARIOTIPO:** 2n = 46, modal no. 56

**DNA PROFILE:** STR-PCR Data:

Amelogenin:X

CSF1PO:10

D13S317:9

D16S539:10,11

D5S818:12

D7S820:8,10

THO1:6,9

TPOX:8

vWA: 17,18

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:2 - 1:4 i.e. seeding at 1-3 x 10,000 cells / cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C. Cells grow slowly and may not form a complete monolayer, maintain at high density with a minimum of 25% confluency.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:**

**REFERENCIAS:** Proc Natl Acad Sci, USA 1980;77:3464; Am J Physiol 1984;246:G204

**COMENTARIOS:** Derived from a lung metastasis of colon carcinoma in a 72 year old male. Tumour tissue was inoculated sub-cutaneously and serially transplanted in BALB/c nude mice and subsequently established in in vitro culture. The histological characteristics of the tumour were maintained throughout the transplantation procedure. They have receptors for a range of peptide hormones and neurotransmitters. The cells grow as monolayers, exhibit tight junctions and desmosomes between adjacent cells.

## THP 1

**REFERENCIA N°: ECACC N°: 88081201 (lote CB No 99A004) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human monocytic leukaemia

**MORFOLOGÍA** Monocyte. Suspension

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:**

**DNA PROFILE: STR-PCR Data:**

Amelogenin:X,Y  
CSF1PO:11,13  
D13S317:13  
D16S539:11,12  
D5S818:11,12  
D7S820:10  
THO1:8,9.3  
TPOX:8,11  
vWA: 16

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 3-9x100,000 cells/ml; 5% CO<sub>2</sub>; 37°C. If starting from a frozen ampoule the cryoprotectant should be removed. Add thawed cells to a conical based centrifuge tube e.g. 15ml tube, slowly add 4 ml of culture medium to the tube. Take a sample of the cell suspension, e.g. 100µl, to count cells. Centrifuge the cell suspension at low speed i.e. 100 - 150 x g for a maximum of 5 minutes. Remove medium and resuspend the cell pellet at a density of 3 - 5 x 100,000 cells/ml in fresh medium containing 20% serum. Incubate flask at 37°C; 5 - 7% CO<sub>2</sub>. Check daily. Keep flask in a vertical position until the cells reach the exponential phase of growth. This can take up to 7 days. Once the culture is established the serum concentration can be reduced to 10%. To keep the cells in exponential growth, maintain cultures between 3-8x100,000 cells/ml. Requires 5% DMSO and 95% foetal bovine serum (FBS) as cryoprotectant. Growing orders are recommended due to difficulties that can be experienced during the initial start-up of this cell line. Replacements will be charged at full cost where claims cannot be substantiated

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Dr J Clarke, AVRI, Pirbright

**REFERENCIAS:** Int J Cancer 1980;26:171; Cancer Res 1982;42:1530; J Immunol 1983;131:1882

**COMENTARIOS:** Derived from the peripheral blood of a 1 year old male with acute monocytic leukaemia. THP-1 cells have Fc and C3b receptors and lack surface and cytoplasmic immunoglobulins. These cells also stain positive for alpha-naphthyl butyrate esterase, produce lysozymes and are phagocytic (both latex beads and sensitised erythrocytes). THP-1 cells can also restore the response of purified T lymphocytes to Concanavlin A, show increased CO<sub>2</sub> production on phagocytosis and can be differentiated into macrophage-like cells using for example DMSO.

**tsDC**

**REFERENCIA N°: ECACC N°: 01081609 (lote CB No 02D061) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**Release Conditions: Yes - tsDC CANNOT be released without permission from the Ludwig Institute for Cancer Research. Please complete attached cell line release authorisation form.**

**DESCRIPCION CELULAR:** Immortalised mouse dendritic cell line Bone marrow, Mouse

**MORFOLOGÍA** Semi-adherent

**MEDIO DE CULTIVO:** Iscove's MEM + 5% Foetal Bovine Serum (FBS) + 2 mM Glutamine + 0.05 mM 2Mercaptoethanol (2ME).

**NUMERO DE PASE:** 7

**CARIOTIPO:**

**GMO Status:** Genetically Modified Organism Class 1 (GMO1)

**PROCEDIMIENTO DE SUBCULTIVO:** Passage cells approximately every 1- 2 weeks. Culture at 33°C; 5-10% CO<sub>2</sub>. Cells have heterogenous morphology, but the line has been cloned. Most cells adhere but some also grow in suspension. Split sub-confluent cultures (70-80%) . Collect any suspension cells, then remove the attached cells via a PBS wash followed by short incubation in 20mM EDTA. Once the cells have detached add culture medium in excess and centrifuge at 150g for 5 minutes. Seed new flasks at 1-3 x10,000 cells/cm<sup>2</sup>.

If resuscitating from a frozen ampoule seed at approximately 4 x10,000 cells/cm<sup>2</sup>.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Dr Brigitta Stockinger, Division of Molecular Immunology, National Institute for Medical Research, The Ridgeway, Mill Hill, London **PATENTE:** This material is cited in US and/or other patent and may not be used to infringe patent claims. US patent No's. 5688692, 5866759 and international patent pending PCT/GB91/00262

**REFERENCIAS:** Volkmann A, Neeffjes J, Stockinger B (1996) A conditionally immortalized dendritic cell line which differentiates in contact with T cells or T cell-derived cytokines. Eur J Immunol. 26(11):2565-72. [PMID: 8921940](#)

**COMENTARIOS:** This is a conditionally immortalised dendritic cell line which was established from bone marrow of CBA (H-2k) mice transgenic for a thermo labile mutant of the SV40 large T antigen under the control of the Class I Kb promoter. At 33-37°C it divides in the absence of GM-CSF. It shares a number of cell surface markers with bone marrow macrophages, but unlike macrophages is constitutively MHC Class II+. Transfer to 39°C, arrests growth and results in up-regulation of surface markers such as B7.1, CD40 and intercellular adhesion molecule-1. Mycoplasma eradicated prior to deposit at ECACC.



**REFERENCIA Nº: ATCC Nº:** CRL-1803 (lote No70029361) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, Thyroid; Medulla, Carcinoma

**MORFOLOGÍA** epitelial, Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated F-12K Medium, Catalog No. 30-2004. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.).

**NUMERO DE PASE:**

**CARIOTIPO:** aneuploid with several markers; modal number = 40; range = 32 to 86

**DNA PROFILE:** STR-PCR Data:

D3S1358: 15  
TH01: 6,9  
D21S11: 29,32.2  
D18S51: 12  
Penta\_E: 7,13  
D5S818: 12,13  
D13S317: 11  
D7S820: 10,12  
D16S539: 12,13  
CSF1PO: 10,13  
Penta\_D: 13  
Amelogenin: X  
vWA: 16,18  
D8S1179: 15,16  
TPOX: 8,11  
FGA: 21,25

D19S433: 14,15  
D2S1338: 17,23

**TUMORIGENIC:** Yes, Tumors developed within 21 days at 100% frequency (5/5) in nude mice inoculated subcutaneously with 10(7) cells.

**GENES EXPRESSED:** calcitonin; carcinoembryonic antigen (CEA)

**POPULATION DOUBLING TIME:** Approximately 83 hrs

**PROCEDIMIENTO DE SUBCULTIVO:** Remove medium, and rinse with 0.25% trypsin, 0.03% EDTA solution. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:4 is recommended

**Medium Renewal:** Twice per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** SS Leong

**REFERENCIAS:** GenBank [AJ275978](#) Homo sapiens partial mRNA LAGE-2b for hypothetical protein (LAGE-2 gene).

Behr TM, et al. Improved treatment of medullary thyroid cancer in a nude mouse model by combined radioimmunotherapy: doxorubicin potentiates the therapeutic efficacy of radiolabeled antibodies in a radioresistant tumor type. *Cancer Res.* 57: 5309-5319, 1997. PubMed: [9393755](#)

**COMENTARIOS:** The TT cell line was established by S.S. Leong, et al. from a specimen obtained by needle biopsy from a 77 year old female with thyroid medullary carcinoma.

TT cells continuously produce high levels of calcitonin and CEA.

Immunoreactive calcitonin was found to be produced in cell culture at levels of 3900 pg/million cells and 7700 pg/million cells 24 and 72 hours respectively, after a medium change.

CEA was found to accumulate to greater than 27 ng/million cells over a 72 hours period.

Chromosomal analysis of the cell line and tumors induced in nude mice reveal an aneuploid human karyotype with several marker chromosomes.

The initial characterization studies of the TT cell line were conducted using early passage TT cells cultivated in RPMI 1640 medium supplemented with 15% fetal bovine serum and 1 mM L-glutamine.

It is not known if the neuropeptides reported to be produced by this cell line when it was grown in RPMI 1640 medium are also produced by the cells when they are cultured in Ham's F12K medium.

Chromosomal analysis of the cell line and tumors induced in nude mice reveal an aneuploid human karyotype with several marker chromosomes.

## **U-87 MG**

**REFERENCIA N°: ECACC N°: 89081402** (lote CB No) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human glioblastoma astrocytoma Brain Human  
**MORFOLOGÍA** Epithelial-like. Adherent

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 1mM Sodium Pyruvate (NaP) + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:** 2n = 46

**DNA PROFILE:** STR-PCR Data:

Amelogenin:X  
CSF1PO:10,11  
D13S317:8,11  
D16S539:12  
D5S818:11,12  
D7S820:8,9  
THO1:9.3  
TPOX:8  
vWA: 15,17

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:3 to 1:6 i.e. seeding at 2-4x10000 cells/cm<sup>2</sup> using 0.25% trypsin or trypsin/EDTA; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens(UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Dr J Clarke, AVRI, Pirbright

**REFERENCIAS:** Acta Path Microbiol Scan 1968;74:465

**COMENTARIOS:** Derived from a malignant glioma from a female patient by explant technique. It is reported to produce a malignant tumour consistent with glioblastoma in nude mice.

## **U937**

**REFERENCIA Nº: ECACC Nº: 85011440 (lote CB No1829) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Caucasian histiocytic lymphoma

**MORFOLOGÍA** linfoblasto, crecimiento en suspensión.

**MEDIO DE CULTIVO:** RPMI 1640 + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

Amelogenin: X  
CSF1PO: 12  
D13S317: 10,12  
D16S539: 12  
D5S818: 12  
D7S820: 9,11  
THO1: 6,9.3  
TPOX: 8,11  
vWA: 14,15

**PROCEDIMIENTO DE SUBCULTIVO:** Maintain cultures between 2-9x10<sup>6</sup> cells/ml; 5% CO<sub>2</sub>; 37°C. Cells may take up to 72 hours until confluent.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** Prof H Harris/Dr R Sutherland, Sir William Dunn School of Pathology, Oxford

**REFERENCIAS:** Int J Cancer 1976;17:565; J Exp Med 1976;143:1528; Nature 1979;279:328; J Immunol 1980;125:463

**COMENTARIOS:** Derived from malignant cells of a pleural effusion of 37 year old caucasian male with diffuse histiocytic lymphoma. One of only a few human lines still expressing many of the monocytic like characteristics exhibited by cells of histiocytic origin

**UBWB1.289**

**REFERENCIA Nº: ATCC Nº: CRL-2945 (lote CB No62959339) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica

surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, ovary

**MORFOLOGÍA:** epithelial-like, adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is:

- 50% ATCC-formulated RPMI-1640 Medium, Catalog No. 30-2001.

- 50% MEGM (Mammary Epithelial Growth Medium from Clonetics/Lonza (MEGM Bullet Kit; CC-3150) made of MEBM basal medium and SingleQuot additives (ATCC does not use gentamycin-amphotericin B).Note: Do not filter complete medium.To make the final complete growth medium add the following components to the base medium:

- fetal bovine serum to a final concentration of 3%.

**NUMERO DE PASE:**

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**D5S818: 13**

**D13S317: 9**

**D7S820: 7,10**

**D16S539: 12**

**vWA: 16,19**

**THO1: 9**

**CSF1PO: 11**

**Amelogenin: X**

**TPOX: 9,11**

**Population Doubling Time :approximately 53 hours**

**PROCEDIMIENTO DE SUBCULTIVO:**

Volumes used in this protocol are for 75 cm<sup>2</sup> flasks; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with Ca<sup>++</sup>/Mg<sup>++</sup> free Dulbecco's phosphate-buffered saline (D-PBS) or 0.25% (w/v) Trypsin - 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).

Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

4. Add 2.0 to 3.0 mL of complete growth medium and aspirate cells by gently pipetting.

5. Transfer cell suspension to a centrifuge tube and spin at approximately 125 X g for 5 to 10 minutes. Discard supernatant.
6. Resuspend the cell pellet in fresh growth medium. Add appropriate aliquots of the cell suspension to culture vessels. An inoculum of  $5 \times 10^3$  to  $7 \times 10^3$  viable cells/cm<sup>2</sup> is recommended.
7. Incubate cultures at 37°C. Subculture when cell concentration is between  $4 \times 10^4$  and  $6 \times 10^4$  cells/cm<sup>2</sup>

**Subcultivation ratio:** A subcultivation ratio of 1:4 to 1:6 is recommended.

**Medium renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** level 1: Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** E Swisher

**REFERENCIAS:** DelloRusso, C., et al. Functional characterization of a novel BRCA1-null ovarian cancer cell line in response to ionizing radiation. Mol Cancer Res.;5(1):35-45, 2007.

PubMed: [17259345](https://pubmed.ncbi.nlm.nih.gov/17259345/)

**COMENTARIOS:** BRCA1-null human ovarian cancer cell line UWB1.289 is from a tumor of papillary serous histology, the most common form of ovarian carcinoma. The patient developed breast cancer at age 42, ovarian cancer at age 54, and died at age 56. UWB1.289 carries a germline BRCA1 mutation within exon 11 and has a deletion of the wild-type allele.

The patient developed breast cancer at age 42, ovarian cancer at age 54, and died at age 56.

UWB1.289 carries a germline BRCA1 mutation within exon 11 and has a deletion of the wild-type allele.

It is estrogen and progesterone receptor negative and has an acquired somatic mutation in p53. It is sensitive to ionizing radiation.

**Genes Expressed:** p53, cytokeratin 7 (CK-7), positive, calretinin, positive, Wilms' tumor protein (WT), positive, BRCA1, negative

**Oncogen:** p53

**Receptor expression:** estrogen, not expressed  
progesterone, not expressed

**Antigen Expression:** cytokeratin 7 (CK-7), positive  
calretinin, positive  
Wilms' tumor protein (WT), positive  
BRCA1, negative

**UWB1.289+BRCA1**

**REFERENCIA N°: ATCC N°:CRL-2946** (lote CB No70010589) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Homo sapiens*, human, ovary

**MORFOLOGÍA:** epithelial-like, adherent

**MEDIO DE CULTIVO: MEDIO DE CULTIVO:** The base medium for this cell line is:

.- 50% ATCC-formulated RPMI-1640 Medium, Catalog No. 30-2001.

.- 50% MEGM (Mammary Epithelial Growth Medium from Clonetics/Lonza (MEGM Bullet Kit; CC-3150) made of MEBM basal medium and SingleQuot additives (ATCC does not use gentamycin-amphotericin B).Note: Do not filter complete medium. To make the final complete growth medium add the following components to the base medium:

- G-418 to a final concentration of 200ug/ml.
- fetal bovine serum to a final concentration of 3%.

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

D5S818: 13

D13S317: 9

D7S820: 7, 10

D16S539: 12

vWA: 16, 19

THO1: 9

TPOX: 9, 11

CSF1PO: 11

Amelogenin: X

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used in this protocol are for 75 cm<sup>2</sup> flasks; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with Ca<sup>++</sup>/Mg<sup>++</sup> free Dulbecco's phosphate-buffered saline (D-PBS) or 0.25% (w/v) Trypsin - 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
**Note:** To avoid clumping, do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 2.0 to 3.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Transfer cell suspension to a centrifuge tube and spin at approximately 125 X g for 5 to 10 minutes. Discard supernatant.

6. Resuspend the cell pellet in fresh growth medium. Add appropriate aliquots of the cell suspension to culture vessels. An inoculum of  $5 \times 10^3$  to  $7 \times 10^3$  viable cells/cm<sup>2</sup> is recommended.
7. Incubate cultures at 37°C. Subculture when cell concentration is between  $4 \times 10^4$  and  $6 \times 10^4$  cells/cm<sup>2</sup>.

**Subcultivation ratio:** A subcultivation ratio of 1:4 to 1:6 is recommended.

**Medium renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD:** 2 [Cells contain CMV and SV40 viral DNA sequences]

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** E SwisherYear

**REFERENCIAS:** DelloRusso, C., et al. Functional characterization of a novel BRCA1-null ovarian cancer cell line in response to ionizing radiation. *Mol Cancer Res.*;5(1):35-45, 2007. PubMed: [17259345](#)

**COMENTARIOS:** UWB1.289+BRCA1 is a stable cell line derived from UWB1.289 (ATCC [CRL-2945](#)), a BRCA1-null human ovarian cancer line, in which wild-type BRCA1 was restored.

A pcDNA3 plasmid carrying wild-type BRCA1 was transfected into the parent line. Restoration of wild-type BRCA1 function in these cells partially restores DNA damage responses. [Ref](#)  
Restoration of wild-type BRCA1 function in these cells partially restores DNA damage responses.

**Genes Expressed:** p53, cytokeratin 7 (CK-7)

**Oncogen:**p53

**Receptor expression:** estrogen, not expressed  
progesterone, not expressed

**Antigen Expression:** BRCA1, positive  
cytokeratin 7 (CK-7), positive  
calretinin, positive  
Wilms' tumor protein (WT), positive

**Vero**

**REFERENCIA Nº: ECACC Nº: 84113001 lote (CB1832) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas**

establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

**DESCRIPCION CELULAR:** Monkey African Green kidney

**MORFOLOGÍA:** Fibroblast-like Adherent

**MEDIO DE CULTIVO:** DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS).

**CARIOTIPO:** 2n = 60, modal no. 58

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1

**DEPOSITOR:** Dr B Thornton, PHLS CAMR, Porton Down, Salisbury

**REFERENCIAS:** Nippon Rinsho 1963;21:1209

**COMENTARIOS:** Línea establecida desde el riñón de un adulto normal de mono verde africano. Susceptibles a un amplio rango de virus, incluidos polio, rubeola, arbovirus y reovirus. La WHO ha depositado células Vero en la ECACC, derivadas de la ampolla de células Vero de la ATCC original (CCL81 en el pase 124)

## **VERO C1008, VERO E6**

**REFERENCIA N°: ATCC N°:CRL-1586** (lote No70034994) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Cercopithecus aethiops*, kidney, Monkey African Green kidney

**MORFOLOGÍA:** epitelial, Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Eagle's Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

Comprueben con el n° de catálogo la concentración de NEAA y de glutamina, con respecto al medio que se utilice.

**NUMERO DE PASE:**

**CARIOTIPO:** 2n = 60

DNA PROFILE: STR-PCR Data:

**VIRUS SUSCEPTIBILITY:**

Junin virus  
Machupo virus  
Lassa virus  
Marburg virus  
Zaire Ebola virus

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.
6. Incubate cultures at 37°C.

**Subcultivation Ratio:** A subcultivation ratio of 1:4 is recommended

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:** EM Earley

**REFERENCIAS:** Puede consultar la web de la ATCC

**COMENTARIOS:** VERO C1008 exhibits some degree of contact inhibition after forming a monolayer and is therefore useful in growing slow replicating viruses.

This line is a clone of VERO 76 ([ATCC CRL-1587](#)). It was cloned by the dilution method into microtiter plates in 1979 by P.J. Price. Plaques are also produced.

When infected with the hemorrhagic fever viruses [Machupo (Bolivian), Junin (Argentinian), Lassa (African)],

**WEHI-231**

**REFERENCIA N°: ECACC N°: 85022107 (Lote n° 06J035) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución

con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse B cell lymphoma

**MORFOLOGÍA:** Linfoblasto. Crecimiento en suspensión

**MEDIO DE CULTIVO:** DMEM (EBSS) + 2 mM GLUTAMINA + 1mM Piruvato sódico + 0.05mM 2-Mercaptoethanol (2ME) + 10% Suero bovino fetal.

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-9x100,000 células/ml. Se incuban a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** Immunology 1980;39:57

**COMENTARIOS:** Expresses surface IgM but does not secrete Ig. Secretion of IgM can be induced with LPS. WEHI 231 is a B cell lymphoma of BALB/c x NXB F1 origin induced by mineral oil injection.

#### **WI 38VA13 subline 2RA**

**REFERENCIA N°: ECACC N°: 85062512 (lote06K026). SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**UN NUMBER:** UN 3373

**DESCRIPCION CELULAR:** Human Caucasian foetal lung, SV40 transformed. An SV40 transformed derivative of WI 38. The cells are characterised by loss of contact inhibition, unlimited proliferation and the presence of SV40 antigens.

**MORFOLOGÍA:** epithelial

**GMO Status:** Genetically Modified Organism Class 1 (GMO1)

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS). McCoy's 5a Medium Modified + 10% Suero bovino fetal

**NUMERO DE PASE:** +8

**CARIOTIPO:** 2n = 46, hyperdiploid, modal no. 73-78

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 2. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** Dr P Wilton-Smith, PHLS CAMR, Porton Down, Salisbury

**REFERENCIAS:** J Nat Cancer Inst 1964;32:917

**COMENTARIOS:**

**WRL-68**

**REFERENCIA N°: ECACC N°: 89121403 (lote CB No2562) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **ESTA LINEA ESTA BAJO PATENTE, POR LO QUE Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human cervix carcinoma

**MORFOLOGÍA** Epithelial-like. Adherente

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2mM Glutamine + 1% Non Essential Amino Acids (NEAA) + 10% Foetal Bovine Serum (FBS).

**NUMERO DE PASE:**

**CARIOTIPO:** no especificado

**DNA PROFILE:** STR-PCR Data:

Amelogenin: X  
CSF1PO: 9,10  
D13S317: 12,14  
D16S539: 9,10  
D5S818: 11,12  
D7S820: 8,12  
THO1: 7  
TPOX: 8,12  
vWA: 16,18

**PROCEDIMIENTO DE SUBCULTIVO:** Split sub-confluent cultures (70-80%) 1:2 to 1:6 i.e. seeding at  $1-5 \times 10^4$  cells/cm<sup>2</sup> using 0.25% trypsin; 5% CO<sub>2</sub>; 37°C.

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 2 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**PATENTE:** This material is cited in a US and/or other Patent and may not be used to infringe parent claims. US Patent No. 3,935,066

## DEPOSITOR:

**REFERENCIAS:** US Patent No 3,935,066; In Vitro Cell Dev Biol 1994;30A:366

**COMENTARIOS:** The human hepatic cell line WRL-68 exhibits a morphology similar to hepatocytes and hepatic primary cultures. Cells have been shown to secrete albumin and alpha-feto protein and express liver specific enzymes such as alanine amino transferase, aspartate amino transferase, gamma-glutamyl transpeptidase and alkaline phosphatase. Previously contaminated with Mycoplasma; treated and cured at ECACC. This cell line was found to be indistinguishable from HeLa by STR PCR DNA profiling. Therefore, the cell line should be considered as derived from HeLa. Ethnicity: Black.

## 3T3 L1

**REFERENCIA N°: ATCC N°:** CL-173 (lote 63486569) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Mouse Embryo

**MORFOLOGÍA** Fibroblast-like, Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, Catalog No. 30-2002. To make the complete growth medium, add the following components to the base medium: bovine calf serum to a final concentration of 10%.

**NUMERO DE PASE:** ATCC CL-173 was deposited in 1974 without passage number information from the depositor. At the time of submission, ATCC prepared approximately 30 vials of seed stock at about 4 passages beyond the original depositor material (passage number: unknown +4).Pase +7

**CARIOTIPO:** 2n = 40; Aneuploid with unstable karyotype

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO: Protocol:** Never allow culture to become completely confluent.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin - 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37C to facilitate dispersal.
4. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.  
The recommended inoculum is 2 to 3 X 10<sup>3</sup> cells/cm<sup>2</sup>. Subculture before cultures become 70 to 80% confluent or when cells reach 5 to 6 X10<sup>4</sup> viable cells/cm<sup>2</sup>. Corning® T-75 flasks (catalog #431464) are recommended for subculturing this product.
6. Incubate cultures at 37°C.

**NIVEL DE BIOSEGURIDAD:** 1

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:**

**US. PATENT NUMBER:** 4,003,789

This material is cited in a US or other Patent and may not be used to infringe the claims. Depending on the wishes of the Depositor, ATCC may be required to inform the Patent Depositor of the party to which the material was furnished. This material may not have been produced or characterized by ATCC

**Receptor Expression:** insulin, expressed

**Genes Expressed:** triglycerides

**Cellular Products:** triglycerides

**REFERENCIAS:** Green H, Meuth M. An established pre-adipose cell line and its differentiation in culture. Cell 3: 127-133, 1974. PubMed: 4426090

Green H. Triglyceride-accumulating clonal cell line. US Patent 4,003,789 dated Jan 18 1977

Goodrum FD, et al. Adenovirus early region 4 34-kilodalton protein directs the nuclear localization of the early region 1B 55-kilodalton protein in primate cells. J. Virol. 70: 6323-6335, 1996. PubMed: 8709260

Scherer PE, et al. Identification, sequence, and expression of caveolin-2 defines a caveolin gene family. Proc. Natl. Acad. Sci. USA 93: 131-135, 1996. PubMed: 8552590

Kallen CB, Lazar MA. Antidiabetic thiazolidinediones inhibit leptin (ob) gene expression in 3T3-L1 adipocytes. Proc. Natl. Acad. Sci. USA 93: 5793-5796, 1996. PubMed: 8650171

Evidence for the involvement vicinal sulfhydryl groups in insulin-activated hexose transport by 3t3-l1 adipocytes. By SC Frost and MD Lane

**COMENTARIOS:** 3T3 L1 is a continuous strain of 3T3 developed through clonal isolation. The cells are not contact inhibited. Cells can be induced to become adipose-like using the method described in the subculture routine information. Appearance of adipocytes can take weeks to achieve.

We would like to manage customer expectations with regard to the potential of the current 3T3 cell line stocks to differentiate into adipocytes. If you intend to use the cells for adipocyte differentiation please note: When cells are stimulated, using an appropriate protocol, differentiation may take several weeks to occur, e.g. 2 – 5 weeks, and the proportion of the population which differentiates can be limited. If you have previously used 3T3 cells from an alternative source we cannot guarantee the differentiation performance will be the same.

We are working to source a new stock of this cell line that has a higher rate of adipocyte differentiation potential which we aim to be able to offer in the future. When this is available we will update the cell line details on the website.

The cells undergo a pre-adipose to adipose like conversion as they progress from a rapidly dividing to a confluent and contact inhibited state. A high serum content in the medium enhances fat accumulation [PubMed ID: 4426090].  
Tested and found negative for ectromelia virus (mousepox).

This line is also designated as ATCC CCL-92.1. ATCC CL-173 was deposited in 1974 without passage number information from the depositor

### 3T3 L1-MBX

**REFERENCIA Nº: ATCC Nº:** CRL-3242 (lote No 62363312) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** *Mus musculus*, mouse , embryo

**MORFOLOGÍA** fibroblast; adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, Catalog No. 30-2002. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**PROCEDIMIENTO DE SUBCULTIVO: Note:** Never allow culture to become completely confluent.

Volumes used in this protocol are for 75 cm<sup>2</sup> flasks; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin - 0.53 mM EDTA solution to remove all traces of serum that contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels.  
The recommended inoculum is 3 to 5 X 10<sup>3</sup> cells/cm<sup>2</sup>. Subculture before cultures become 80 to 90% confluent.

**Interval:** Every three days

**Medium Renewal:** 2 to 3 times per week

**NIVEL DE BIOSEGURIDAD:** Unless specified otherwise, at the European Collection of Authenticated Cell Cultures (ECACC) we routinely handle all of our cell lines at containment level 1 in accordance with the ACDP guidelines. ACDP = Advisory Committee on Dangerous Pathogens (UK) All cell cultures have the potential to carry as yet unidentified adventitious agents. It is the responsibility of the end user to ensure that their facilities comply with biosafety regulations for their own country.

**DEPOSITOR:** CymaBay Therapeutics (formerly Metabolex, Inc.) & Choi Y

**REFERENCIAS:** Gregoire FM, et al. MBX-102/JNJ39659100, a novel peroxisome proliferator-activated receptor-ligand with weak transactivation activity retains antidiabetic properties in the absence of weight gain and edema. Mol. Endocrinol. 23(7): 975-88, 2009. PubMed: [19389808](#)

**COMENTARIOS:** The 3T3 L1-MBX clone was derived from 3T3-L1 (ATCC [CL-173](#)) to ensure close to 100% differentiation to adipocytes and great response to insulin. In addition, 3T3 L1-MBX has a great insulin-stimulated glucose uptake response which is about 8-10 fold window with sub-maximal insulin concentration in 2-deoxyglucose uptake assay (2-DOG). This cell line would be a valuable tool for researchers who are interested in diabetes and obesity research areas.

**22Rv1**

**REFERENCIA N°: ECCC N°: 05092802 (lote15A027) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Humano xenoinjerto de próstata

**MORFOLOGÍA** Epitelial. Agregados adherentes

**MEDIO DE CULTIVO:** RPMI 1640 sin rojo fenol (Sigma R7509) + 2 mM de glutamina + 10% suero bovino fetal (FBS)

NUMERO DE PASE: 7

**CARIOTIPO:**

49,XY,del(1)(p10),+i(1)(q10),der(2)t(2;4)(p13;q31)del(2)(q13q33),der(4)t(2;4)(p13;q31),t(6;14)(q15;q32),+7,+12[5]/50,idem,+3[1]

**PERFIL DNA:** STR-PCR de datos:

Amelogenina:X,Y

CSF1PO:10,11

D13S317:912

D5S818:11,12

D7S820:10,11

THO1:6,9.3

TPOX:8

vWA: 15,21

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1.6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**NIVEL DE BIOSEGURIDAD:** 2 *Biosafety classification is based on [U.S. Public Health Service Guidelines](#), it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country*

**DEPOSITOR:** James W. JACOBBERGER, Case Western Reserve University, Cleveland, Ohio, EE.UU.

**REFERENCIAS:** Sramkoski et al . Una nueva línea celular de carcinoma de próstata humano, 22Rv1. In Vitro Cell. Dev. Biol. Anim. 35: 403 a 409, 1999.

**COMENTARIOS:** receptor de andrógenos positivo . 22Rv1 is a human prostate carcinoma epithelial cell line derived from a xenograft that was serially propagated in mice after castration-induced regression and relapse of the parental, androgen-dependent CWR22 xenograft. The cell line expresses prostate specific antigen (PSA). Growth is weakly stimulated by dihydroxytestosterone and lysates are immunoreactive with androgen receptor antibody by Western blot analysis. Growth is stimulated by epidermal growth factor (EGF) but is not inhibited by transforming growth factor beta-1 (TGF beta-1). This cell line is tumorigenic in nude mice.

### 293, HEK 293

**REFERENCIA N°: ECACC N°: 85120602 (lote CB2737) SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human Embryo Kidney

**MORFOLOGÍA:** epitelial adherente

**MEDIO DE CULTIVO:** EMEM (EBSS) + 2 mM GLUTAMINA + 1% de aminoácidos no esenciales + 1mM Piruvato sódico + 10% Suero bovino fetal.

**CARIOTIPO:** 2n 46, hypotriploid, modal no. 64

**N° PASE:** 66

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos subconfluentes en 1:3 a 1:6 sembrando de 2-4x10000 células/ml empleando tripsina al 0.25% o tripsina/EDTA. Se incuban a 37 C y 5% de CO<sub>2</sub>. Durante los subcultivos rutinarios las células deben siempre subcultivarse antes de alcanzar la confluencia. Estas células se despegan a temperatura ambiente. Pueden tardar hasta 7 días en adherirse. Cuando se descongelan, deben sembrarse en altas concentraciones.

**NIVEL DE BIOSEGURIDAD:** 1

**REFERENCIAS:** Virology 1977 77:319 PNAS USA 1996 93:4891 PNAS USA 1996 93:4192 Virology 1978 86:10 J Biol Chem

**COMENTARIOS:** Transformed with sheared human Ad5 DNA. Sensitive to human adenoviruses and adenovirus DNA. Can be used to isolate transformation defective host-range mutants of Ad5 and for titrating human adenoviruses. This is a hypotriploid human cell line. The modal chromosome number was 64, occurring in 30% of cells. The rate of cells with higher ploidies was 4.2%. The der (1)t(1;15) (q42;q13), der(19)t(3;19)(q12;q13), der(12)t(8;12) (q22;p13) and four other marker chromosomes were common to most cells. Five other markers occurred in some cells only. The marker der(1) and M8 (or Xq+) were often paired. There were four copies of N17 and N22. Noticeably in addition to three copies of X chromosomes, there were paired Xq+ and a single Xp+ in most cells. The Ad insert was shown to consist of a colinear segment from

nucleotides 1 to 4344 integrated into chromosome 19 (19q13.2). Expression of an unusual cell surface receptor for vitronectin has been reported. This is composed of the integrin beta-1 subunit and the vitronectin receptor alpha-v subunit.

**293T**

**REFERENCIA N°:CRL-3216 ATCC N°:** (lote No70054118) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR:** Human cells, kidney; Embryo

**MORFOLOGÍA:** epitelial; Adherent

**MEDIO DE CULTIVO:** The base medium for this cell line is Dulbecco's Modified Eagle's Medium (DMEM). To make the complete growth medium, add the following components to the base medium: 10% Fetal Bovine Serum (heat inactivated), 2mM L-glutamine

NUMERO DE PASE:

**CARIOTIPO:**

**STR profiling:**

CSF1PO: 11,12

D13S317: 12,14

D16S539: 9,13

D5S818: 8,9

D7S820: 11

TH01: 7, 9.3

TPOX: 11

vWA: 16,19

Amelogenin: X

**GMO STATUS:** Genetically Modified Organism Class 1 (GMO1)

**PROCEDIMIENTO DE SUBCULTIVO:** Volumes used in this protocol are for 75 cm<sup>2</sup> flasks; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with Ca<sup>++</sup>/Mg<sup>++</sup> free Dulbecco's phosphate-buffered saline (D-PBS) or 0.05% (w/v) Trypsin - 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 1.0 to 2.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes). Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.

5. Add appropriate aliquots of the cell suspension to new culture vessels. Incubate cultures at 37°C.

**Subcultivation ratio:** A subcultivation ratio of 1:3 to 1:8 is recommended.

**Medium renewal:** Every 2 to 3 days

**NIVEL DE BIOSEGURIDAD: 2.** ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

Cells contain Adenovirus

**DEPOSITOR**Stanford Univ.:

**REFERENCIAS:** DuBridg e RB, et al. Analysis of mutation in human cells by using an Epstein-Barr virus shuttle system. *Mol. Cell Biol.* 7: 379-387, 1987. PubMed: [3031469](#)

Pear WS, et al. Production of high-titer helper-free retroviruses by transient transfection. *Proc. Natl. Acad. Sci. USA.* 90: 8392-8396, 1993. PubMed: [769096](#)

**COMENTARIOS:** The 293T cell line was created in the laboratory of Michele Calos by transfection of a sub-line of adenovirus-immortalized human embryonic kidney cells with a gene encoding the SV40T-antigen and a neomycin resistance gene. The cell line is competent for replication of vectors carrying the SV40 origin of replication. The line also has favourable tissue culture, transfection, DNA replication, gene expression, and protein production properties. It gives high titres when used to produce many viral vectors such as oncoretroviruses and lentiviruses.

293T is an epithelial-like cell that was isolated from the kidney of a patient. This cell line was deposited by Stanford University and can be used in vaccine development.

The 293T cell line, originally referred as 293tsA1609neo, is a highly transfectable derivative of human embryonic kidney 293 cells, and contains the SV40 T-antigen.

This cell line is competent to replicate vectors carrying the SV40 region of replication. It gives high titers when used to produce retroviruses. It has been widely used for retroviral production, gene expression and protein production.

**293T/17**

**REFERENCIA N°: ATCC: CRL-11268**

**SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas.

Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.

The line is available with the following restriction: 1. The cell line was deposited at the ATCC by Rockefeller University and is provided for research purposes only. Neither the cell line nor the products derived from it may be sold or used for commercial purposes. Nor can the cells be distributed to third parties for purposes of sale, or producing for sale, cells or their products. The cells are provided as a service to the research community. They are provided without warranty of merchantability or fitness for a particular purpose or any other warranty, expressed or implied. 2. Any proposed commercial use of the cells, or their products, must first be negotiated with Rockefeller University, Office of Technology Transfer, 1230 York Avenue, New York, NY 10065 Attn: Kathleen A. Denis, Associate Vice President Technology Transfer.

**DESCRIPCION CELULAR:** Riñón de feto humano

**MORFOLOGÍA:** Epitelial y adherente

**MEDIO DE CULTIVO:** DMEM + 4 mM GLUTAMINA conteniendo 1.5 g/L de bicarbonato sódico y 4.5 g/L de glucosa + 10% Suero bovino fetal inactivado

**NIVEL DE BIOSEGURIDAD:** 2 [Cells contain Adeno and SV-40 viral DNA sequences]

*Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**CARIOTIPO:** 2n=46

**PROCEDIMIENTO DE SUBCULTIVO:** Dividir los cultivos confluentes de 1:2 a 1:6 sembrando 2-4 x 10000 células/cm<sup>2</sup> usando tripsina al 0.25% o EDTA/tripsina. Incubar a 37 C y 5% de CO<sub>2</sub>.

**U.S. Patent Number:6,329,199**

This material is cited in a US or other Patent and may not be used to infringe the claims. Depending on the wishes of the Depositor, ATCC may be required to inform the Patent Depositor of the party to which the material was furnished.

**REFERENCIAS:** J. Nat. Cancer Inst. 1973; 51:1409.

**COMENTARIOS:** Es una línea derivada de la línea celular 293T. La línea 293T es una línea derivada de la 293 altamente transfectable en la que se ha insertado antígeno de SV40T. 293T fueron clonadas y co-transfectadas con los vectores pBND y pZAP para obtener la línea 293T/17 resistente. Estas células expresan el antígeno T del SV40 y el clon 17 es seleccionado por su alta transfectibilidad

293T/17 cells were cotransfected with the pCRIPenv- and the pCRIPgag-2 vectors to obtain the ANJOU 65 (see ATCC [CRL-11269](#)) cell line. ANJOU 65 cells were cotransfected with the pCRIPgag-2 and pGPT2E vectors to obtain the BOSC 23 (see ATCC CRL-11270) ecotropic envelope-expression packaging cell line. ANJOU 65 cells were also cotransfected with the pCRIPAMgag vector along with a plasmid expressing the gpt resistance gene to obtain the Bing (see ATCC [CRL-11554](#)) amphotropic envelope-expression packaging cell line

**55-6**

**REFERENCIA N°: ATCC N°: CRL-2156**(lote No BATCH DATE 01/01/1995) **SUMINISTRADA POR EL BANCO DE CÉLULAS DEL CIC DE LA UNIVERSIDAD DE GRANADA.** Se ruega que en las publicaciones derivadas del uso de esta línea celular, se incluya la procedencia citada anteriormente. Estas células son distribuidas para su uso en investigación solamente. No está permitida su distribución con usos comerciales. No se aconseja la distribución a terceras personas pues de esta práctica surgen la extensión de las líneas celulares contaminadas. **Se ruega cumplan las normas establecidas por el banco de células de su referencia, las cuales pueden consultarlas en su página web.**

**DESCRIPCION CELULAR** Hybridoma: *Mus musculus* (B cell); *Mus musculus* (myeloma), mouse (B cell); mouse (myeloma), hybridoma: b lymphocyte

**MORFOLOGÍA:** lymphoblast, Suspension

**MEDIO DE CULTIVO:** The base medium for this cell line is ATCC Hybri-Care Medium, Catalog No. 46-X. Hybri-Care Medium is supplied as a powder and should be reconstituted in 1 L cell culture grade water. To make the complete growth medium, add the following components to the base medium:

- fetal bovine serum to a final concentration of 10%
- 1.5 g/L sodium bicarbonate for use with 5% CO<sub>2</sub> in air atmosphere.

NUMERO DE PASE:

**CARIOTIPO:**

DNA PROFILE: STR-PCR Data:

**GENES EXPRESSED:** immunoglobulin, monoclonal antibody, against human immunodeficiency virus 1 (HIV-1) gp120

**ISOTYPE:** IgG2a

**PROCEDIMIENTO DE SUBCULTIVO:** Cultures can be maintained by addition or replacement of fresh medium. Start cultures at  $2 \times 10^5$  cells/mL and maintain between  $1 \times 10^5$  and  $1 \times 10^6$  cells/mL.

**Medium Renewal:** Two to three times weekly.

**NIVEL DE BIOSEGURIDAD:** 1. *Biosafety classification is based on U.S. Public Health Service Guidelines, it is the responsibility of the customer to ensure that their facilities comply with biosafety regulations for their own country.*

**DEPOSITOR:**

SL Epstein

**SPECIAL COLLECTION:** NCRR Contract

**REFERENCIAS:** Reeves JP, et al. Mouse monoclonal antibodies to human immunodeficiency virus glycoprotein 120 generated by repeated immunization with glycoprotein 120 from a single isolate, or by sequential immunization with glycoprotein 120 from three isolates. Hybridoma 14: 235-242, 1995. PubMed: [7590785](#)

Hay, R. J., Caputo, J. L., and Macy, M. L., Eds. (1992), ATCC Quality Control Methods for Cell Lines. 2nd edition, Published by ATCC.

Caputo, J. L., Biosafety procedures in cell culture. J. Tissue Culture Methods 11:223-227, 1988.

Fleming, D.O., Richardson, J. H., Tulis, J.J. and Vesley, D., (1995) Laboratory Safety: Principles and Practice. Second edition, ASM press, Washington, DC.

**COMENTARIOS:** Suzanne Epstein that reacts with the gp120 of HIV-1.

In ELISA the antibody reacts strongly with rgp120 IIIB and weakly to gp120 MN.

It binds to the C1 region (positions 105 - 117) gp120 synthetic peptide used to map antibody reactivity and was not able to cross block any other antibodies in the panel.

Spleen cells were fused with Sp2/0-Ag14 myeloma cells.

55-6 is one of a panel of antibodies developed by Dr. Suzanne Epstein that reacts with the gp120 of HIV-1.

Animals were sequentially immunized with recombinant gp120 (rgp120) from three different nonglycosylated isolates of HIV-1 (IIIB, SF2, and Z6).

Spleen cells were fused with Sp2/0-Ag14 myeloma cells.

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