

A549 Cell Line

#Cat: NB-19-0061 Size: 1×10^6 cells/vial

A549 cells were isolated from the lung tissue of a White, 58-year-old male with lung cancer. This cell line can be used in cancer, immuno-oncology, and toxicology research.

Characteristics

Cell Name	A549 Cell Line
Organism	<i>Homo sapiens</i> , Human
Morphology	Epithelial-like
Tissue	Lung
Cell type	Epithelial cell
Disease	Carcinoma
Growth Properties	Adherent
Derivation	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.
Age	58 years old
Ethnicity	White
Gender	Male
Karyotype	Hypotriploid human cell line with the modal chromosome number of 66
Tumorigenic	No
STR profile	AMEL: X, Y CSF1PO: 10,12 D13S317: 11 D16S539: 11,12 D18S51: 14,17 D21S11: 29 D3S1358: 16 D5S818: 11 D7S820: 8,11 D8S1179: 13,14 FGA: 23 PENTA D: 9 PENTA E: 7,11 THO1: 8,9.3 TPOX: 8,11 vWA: 14
Biosafety Level	1
Product format	Frozen
Storage conditions	Vapor phase of liquid nitrogen

Culture conditions

Complete medium	The base medium for this cell line is Neo DMEM/Ham's F-12, with L-glutamine (Catalog No. NB-58-0010). To make the complete growth medium, add fetal bovine serum to a final concentration of 10%
Temperature	37°C
Atmosphere	95% air, 5% CO ₂
Subculturing	Volumes are given for a 75 cm ² flask, increase or decrease the amount of medium needed proportionally for culture vessels of other sizes <ol style="list-style-type: none">1. Remove and discard culture medium2. Briefly rinse the cell layer with DPBS solution to remove all traces of serum that contains trypsin inhibitor3. Add 2 mL of Trypsin-EDTA solution to the flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 10 minutes). Cells that are difficult to detach may be placed at 37°C to facilitate dispersal4. Add 8 mL of complete growth medium and aspirate cells by gently pipetting5. Add appropriate aliquots of the cell suspension to new culture vessels
Seeding density	2 x 10 ³ to 1 x 10 ⁴ cells/cm ²
Subculture ratio	1:3-1:8
Medium renewal	2 to 3 times per week
Cryopreservation	FBS with 10% (v/v) DMSO

Handling information

Unpacking	<ol style="list-style-type: none">1. Check all containers for leakage or breakage2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use
Procedure	<p>To ensure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.</p> <ol style="list-style-type: none">1. Quickly thaw the vial by gentle agitation in a 37°C water bath within 1-2 minutes.2. Remove the vial from the water bath as soon as the contents are thawed and decontaminate by dipping in or spraying with 70% ethanol. All operations from this point on should be carried out under strict aseptic conditions.3. Carefully open the vial and transfer the cell suspension to a centrifuge tube containing 8 mL complete culture medium (room temperature). Centrifuge at 300 x g for 5-7 minutes and carefully discard the supernatant containing residual freezing medium.4. Gently resuspend the cell pellet in 10 ml fresh complete medium and dispense into a 75 cm² culture flask.5. Incubate the culture at 37°C in a suitable incubator for 24-48 hours and check under the microscope. All further steps are described in the subculture section.

Required Products

These products are vital for the proper use of this item and have been confirmed as effective in supporting functionality. If you use alternative products, the quality and effectiveness of the item may be affected.

Neo DMEM/Ham's F-12, with L-glutamine (NB-58-0010).

Neo FBS, Collected in South America (NB-58-0001A, NB-58-0001B)

Neo Trypsin-EDTA (0.05 %) in DPBS (1x) (NB-58-0108)

Neo Freeze 1, Cryopreservation Medium with Fetal Bovine Serum (NB-58-0065)

Neo Dulbecco's PBS (1x), w/o Ca & Mg, w/o Phenol Red (NB-58-0022)

Related Products

Genomic DNA A549 Cell Line (NB-19-0061-DNA)