Product sheet

NCI-H69 Cells | 300185

General information

Description	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 line can be adapted to grow in shaker flask or spinner flask systems. These cells are not resistant to Adriamycin.
Organism	Human
Tissue	Lung
Disease	Lung small cell carcinoma
Metastatic site	Pleural effusion
Synonyms	NCI-H-69, NCI H69, H69, H-69, NCIH69, NCI-HUT-69, H69/P, NCI-H69C, H69C, H69c

Characteristics

Age	55 years
Gender	Male
Ethnicity	Caucasian
Growth properties	Floating aggregates

Identifiers / Biosafety / Citation

Citation	NCI-H69 (H69) (Cytion catalog number 300185)
Biosafety level	1

Expression / Mutation

Receptors expressed	Insulin-like growth factor II receptor (IGF II)
Protein expression	p53 negative, cytokeratins positive

Isoenzymes	G6PD, B, PGM1, 2, PGM3, 1, ES-D, 2, Me-2, 1, AK-1, 1, GLO-1, 1-2, Phenotype Frequency Product: 0.00006
Tumorigenic	Forms tumors with typical small cell carcinoma histology
Karyotype	Aneuploid, with 3p deletion. Range = 40 to 73

Handling

Culture Medium	RPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Medium supplements	Supplement the medium with 10% FBS
Doubling time	69 hours
Subculturing	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. Subculture every 6 to 8 days.
Split ratio	A ratio of 1:2 to 1:4 is recommended
Seeding density	1 x 10^5 cells/mL
Fluid renewal	2 to 3 times per week
Freezing recovery	After thawing allow the cells to recover from the freezing process for at least 24 hours.
Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

Handling of cryopreserved cultures

1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
6. Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium. Optionally, skip centrifugation but remove any remaining freezing medium after 24 hours.
7. Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

Quality control / Genetic profile / HLA

Sterility

Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods.

To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.

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STR profile	**CSF1PO**: 10,12 **D13S317**: 12 **D16S539**: 11 **D5S818**: 11,13 **D7S820**: 9 **TH01**: 8,9 **TPOX**: 10 **vWA**: 16,17 **D3S1358**: 16 **D21S11**: 30,31.2 **D18S51**: 12 **Penta E**: 12 **Penta D**: 9,11 **D8S1179**: 13 **FGA**: 24
HLA alleles	**A***: 02:01:01, 23:01:01 **B***: 01:01:01, 02.01.1900 03:01 **C***: 07:01:01, 14:02:01 **DRB1***: 04:04:01, 04:05:01 **DQA1***: 03:01:01, 03:03:01 **DQB1***: 03:02:01 **DPB1***: 01:01:01G, 03:01:01G **E**: 01:01:01