# NCI-H69 (H69)

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.

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| **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

## CLASSIFICATION

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| **Organism** | Human |
| **Sex** | Male |
| **Biosafety level** | 1 |

## CHARACTERISTICS

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| **Tumourigenic** | Forms tumors with typical small cell carcinoma histology |

### Karyotype

Aneuploid, with 3p deletion. Range = 40 to 73

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| **Doubling time** | 69 hours |

## IDENTIFIERS

### Citation

NCI-H69 (H69) (Cytion catalog number 300185)

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|---|---|
| **NCBI TaxID** | 9606 |
| **Cellosaurus** | CVCL_1579 |

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## EXPRESSION AND SUSCEPTIBILITY

### 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

## HANDLING AND CULTURE

### Culture medium

RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)

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| **Incubation atmosphere** | 37°C, 5% $CO_2$, humidified atmosphere. |

### Supplements

Supplement the medium with 10% FBS

### 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.

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| **Seeding density** | 1 x $10^5$ cells/ml |
| **Fluid renewal** | 2 to 3 times per week |
| **Post-thaw recovery** | After thawing allow the cells to recover from the freezing process for at least 24 hours. |

### Thawing and culturing

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
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.
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.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
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.
Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
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.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

## QUALITY CONTROL AND CRYOPRESERVATION

### 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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| **Freeze medium** | As a cryopreservation medium, we use complete growth medium (including FBS) + 10% DMSO for adequate post-thaw viability, or CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress. |

### Storage conditions

For long-term preservation, place vials in vapor-phase liquid nitrogen at about −150 to −196 °C. Storage at −80 °C is acceptable only as a short interim step before transfer to liquid nitrogen.

### Shipping conditions

Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately −78 °C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.

## DONOR

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| **Donor age** | 55 years |
| **Ethnicity** | Caucasian |

## LEGAL AND SAFETY

### Safety precautions

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

### Warranty

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

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| **Material Transfer Agreement required** | Yes |