

NCI-H524 Cells | 305120

General information

Description	The line was established in 1982 from metastatic lymph nodes of a 63-year-old male Caucasian smoker with non-small cell lung carcinoma. The patient received prior chemotherapy and radiation therapy.
Organism	Human
Tissue	Lung
Disease	Lung small cell carcinoma
Metastatic site	Lymph Nodes
Synonyms	NCI-H524 , H-524, NCIH524

Characteristics

Age	63 years
Gender	Male
Ethnicity	European
Morphology	Rounded
Growth properties	Suspension

Identifiers / Biosafety / Citation

Citation	NCI-H524 (Cytion catalog number 305120)
Biosafety level	1

Expression / Mutation

Handling

Culture Medium	RPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO ₃ (Cytion article number 820700a)
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Medium supplements Supplement the medium with 10% FBS

Doubling time 100 hours

Subculturing Maintain cultures by periodically adding or replacing the medium. Initiate cultures with a density of 2×10^5 cells/ml and keep the cell concentration within the range of 1×10^5 to 1×10^6 cells/ml for optimal growth.

Split ratio $1:10^5$ to $1:10^6$ cells/mL

Fluid renewal 2 to 3 times per week

Freeze medium CM-1 (Cytion catalog number 800100)

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 $300 \times g$ for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
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

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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.

STR profile

Amelogenin: x,x

CSF1PO: 12

D13S317: 12

D16S539: 12

D5S818: 12

D7S820: 11,12

TH01: 8,9,3

TPOX: 8,1

vWA: 14,17

D3S1358: 15

D21S11: 29,3

D18S51: 12,13

Penta E: 5,15

Penta D: 12,13

D8S1179: 13,15

FGA: 21,25

D6S1043: 11,13

D2S1338: 16,17

D12S391: 16,21

D19S433: 16