

DMS-79 Cells | 300164**General information**

Description The line was established from cells in the pleural fluid of a patient with small cell carcinoma of the lung. The patient had previously been treated with cytoxan, vincristine, methotrexate and radiation therapy. The cells express HLA class I and class II antigens.

Organism Human

Tissue Lung

Disease Carcinoma, azaserine induced

Metastatic site Pleural effusion

Synonyms DMS 79, DMS79

Characteristics

Age 65 years

Gender Male

Ethnicity Caucasian

Growth properties Aggregates in suspension

Identifiers / Biosafety / Citation

Citation DMS-79 (Cyton catalog number 300164)

Biosafety level 1

Expression / Mutation

Receptors expressed Epidermal growth factor (EGF)

Antigen expression Leu 7, My23, Class 1 HLA, Class 2 HLA

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Oncogenes c-myc +, N-myc +, c-raf-1 +, Ha-ras +, Ki-ras +, N-ras +, v-fes -, v-fms -

Tumorigenic Yes, in nude mice

Products Adrenocorticotropin (adrenocorticotrophic hormone, ACTH), bombesin, calcitonin, corticotropin, beta endorphin, 17 beta estradiol, lipotropin, oxytocin - neurophysin (OT-NP), parathormone, somatostatin-like immunoreactivity (SRIF)

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 96 hours

Subculturing Once or twice a week add 5 ml of fresh cell culture medium, as soon as the culture medium gets acidic. Subculture as soon as many very large clusters are observed. Dissociate the clusters by collecting the cells, rinsing once using PBS without calcium/magnesium and adding 3-5 ml Accutase. Incubate at 37 degree Celsius for 10 minutes. Collect the cells following centrifugation, resuspend in fresh cell culture medium and count. Start cultures at $2-4 \times 10^4$ cells/ml.

Split ratio A ratio of 1:2 to 1:4 is recommended

Seeding density 2 to 4×10^4 cells/cm²

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)

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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

Amelogenin: x,y
CSF1PO: 10
D13S317: 11
D16S539: 12
D5S818: 10
D7S820: 9,11
TH01: 8
TPOX: 8
vWA: 18
D3S1358: 8
D21S11: 30
D18S51: 14,17
Penta E: 7
Penta D: 11,13
D8S1179: 12,14
FGA: 21

HLA alleles

A*: 01:01:01, 02:01:01
B*: 08:01:01, 35:01:01
C*: 04:01:01, 07:01:01
DRB1*: 11:01:01, 14:01:01
DQA1*: 01:04:01, 05:05:01
DQB1*: 03:01:01, 05:03:01
DPB1*: 03:01:01, 10:01:01
E: 01:01, 01:03