

DS19 Cells | 305153

### General information

<b>Description</b>	DS19, also known as MEL DS19, is an immortalized tumor cell line caused by FVA virus infection that is roughly at the proerythrocyte stage of differentiation. Treatment of MEL cells with DMSO or hemin induces normal erythroid cell differentiation phenotypes.
<b>Organism</b>	Mouse
<b>Disease</b>	Mouse erythroid leukemia
<b>Synonyms</b>	MEL-DS19, MEL DS19, MELDS19, 745/DS19, MELC DS19, MEL-745A cl. DS19, MEL

### Characteristics

<b>Morphology</b>	Lymphoblast
<b>Growth properties</b>	Suspension

### Identifiers / Biosafety / Citation

<b>Citation</b>	DS19 (Cytion catalog number 305153)
<b>Biosafety level</b>	2

### Expression / Mutation

### Handling

<b>Subculturing</b>	Gently homogenize the cell suspension in the flask by pipetting up and down, then take a representative sample to determine the cell density per ml. Dilute the suspension to achieve a cell concentration of $1 \times 10^5$ cells/ml with fresh culture medium, and aliquot the adjusted suspension into new flasks for further cultivation.
<b>Split ratio</b>	1:3 to 1:5
<b>Freeze medium</b>	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  $-150^{\circ}\text{C}$  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  $37^{\circ}\text{C}$  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. 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.