ID8

305305

GENERAL INFORMATION

Description

The ID8 cell line is a widely utilized murine model derived from spontaneous transformation of C57BL/6 mouse ovarian surface epithelial (MOSE) cells. This cell line closely mimics human epithelial ovarian cancer, making it a vital tool for preclinical research into ovarian cancer pathophysiology and treatment. ID8 cells are known for their ability to grow intraperitoneally in immunocompetent C57BL/6 mice, facilitating studies of tumor progression and metastasis. This model is particularly relevant for examining peritoneal tumor formation and ascites development, which are key features of advanced ovarian cancer in patients.
ID8 cells exhibit the capability to form tumors when injected intraperitoneally, leading to disseminated cancer throughout the abdominal cavity and ascitic fluid accumulation. These properties enable the exploration of tumor-host interactions, including the role of the immune system and tumor microenvironment in cancer progression. In studies involving immunotherapies or combined treatment approaches, ID8 has proven valuable for evaluating the effects of interventions such as chemotherapy agents like carboplatin and immune checkpoint inhibitors targeting PD-L1.
Research involving ID8 models has shown their utility in examining the influence of tumor metabolism on immune cell behavior, particularly macrophage polarization and function. For instance, tumors induced by ID8 cells can modulate the metabolism of peritoneal macrophages, altering their oxidative phosphorylation (OXPHOS) and promoting tumor growth through metabolic crosstalk. These insights have paved the way for exploring targeted metabolic therapies that may inhibit tumor-promoting immune cell adaptations.

Tissue	Ovary
Disease	Normal

Synonyms

- ID-8
- ID8/MOSEC

CLASSIFICATION

Organism	Mouse
Sex	Female
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	Epithelial-like
Cell type	Epithelial cell

IDENTIFIERS

Citation

ID8 (Cytion catalog number 305305)

NCBI TaxID	10090
Cellosaurus	CVCL_IU14

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HANDLING AND CULTURE

Culture medium

DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 3.7 g/L NaHCO3, w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)

Incubation atmosphere	37°C, 5% CO_2, humidified atmosphere.

Supplements

Supplement the medium with 10% FBS

Dissociation reagent	Accutase

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.

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

Breed / subspecies	C57BL/6
Donor age	Adult

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.

Material Transfer Agreement required	Yes

PRODUCT DETAILS

Composition table

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