OAW-28

305608

GENERAL INFORMATION

Description

OAW-28 is a human ovarian adenocarcinoma cell line widely utilized as a model for studying ovarian cancer, particularly epithelial ovarian adenocarcinomas, which represent the most common subtype of ovarian malignancies. OAW-28 cells provide researchers with a platform to investigate tumor biology, therapeutic resistance mechanisms, and the development of novel treatment approaches for this aggressive cancer type.
OAW-28 cells exhibit an epithelial morphology and adhere under standard cell culture conditions. These cells are characterized by their ability to represent key features of ovarian adenocarcinoma, including dysregulated cell growth, altered apoptotic pathways, and the expression of molecular markers associated with ovarian cancer progression. This cell line is also useful in exploring the genetic and epigenetic alterations commonly observed in ovarian cancers, such as mutations in TP53 or alterations in DNA repair pathways.
Due to the aggressive nature of ovarian adenocarcinoma and its frequent resistance to chemotherapeutic agents, OAW-28 is often employed in preclinical drug development. Researchers use this cell line for testing cytotoxic compounds, targeted therapies, and combination regimens to identify potential treatments for chemoresistant ovarian cancer. Moreover, it serves as a tool for studying tumor-microenvironment interactions and the processes involved in metastasis, particularly to the peritoneal cavity. OAW-28 remains a valuable resource for advancing understanding and treatment strategies in ovarian cancer research.

Tissue	Ovary
Disease	Ovarian adenocarcinoma
Metastatic site	Ascites

Applications

Tumourigenicity studies

Synonyms

- OAW-28
- OAW 28

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	Epithelial-like

IDENTIFIERS

Citation

OAW-28 (Cytion catalog number 305608)

NCBI TaxID	9606
Cellosaurus	CVCL_1614

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Banking information
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EXPRESSION AND SUSCEPTIBILITY

Mutational profile

Mutation: TP53, p.Pro152Argfs*18 (c.455delC), Unspecified

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

Donor age	75 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.

Material Transfer Agreement required	Yes

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