TOV-112D

305584

GENERAL INFORMATION

Description

TOV-112D is a human endometrioid ovarian carcinoma cell line established from the primary ovarian tumor of a 42-year-old Caucasian female patient. The line grows as an adherent monolayer. TOV-112D harbors a TP53 p.Ser37Ala (homozygous) substitution in the transactivation domain, a homozygous PTEN frameshift mutation (p.Leu639fs), and a TP53 p.Arg175His mutation. This combination of TP53 and PTEN alterations makes TOV-112D a relevant model for studying endometrioid-type ovarian carcinoma, which frequently harbors concurrent TP53, PTEN, and CTNNB1 mutations. The doubling time is approximately 22–29 hours.
TOV-112D is applicable in studies of endometrioid ovarian carcinoma biology, TP53 mutant phenotype, PTEN loss and PI3K/Akt pathway activation, drug sensitivity evaluation (carboplatin, paclitaxel, PARP inhibitors), and gynecological oncology research. It is suitable for in vitro pharmacological assays and xenograft models in immunocompromised hosts for preclinical ovarian cancer drug evaluation.

Tissue	Ovary
Disease	Endometrioid carcinoma of ovary
Metastatic site	Primary tumor site (ovary)

Applications

Endometrioid ovarian carcinoma; TP53 mutant tumor biology; PTEN loss and PI3K/Akt activation; drug sensitivity (carboplatin, paclitaxel, PARP inhibitors); gynecological oncology; xenograft models

Synonyms

- TOV-112d
- TOV112D
- TOV-112
- TOV112

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
GMO status	Non-GMO

GMO status details

No genetic modification; wildtype ovarian carcinoma cell line with somatic TP53 and PTEN mutations

Biosafety level	1

CHARACTERISTICS

Morphology	Epithelial-like
Cell type	Epithelial cells
Doubling time	0.8 day ; 1.0 +- 0.2 days ; 22 hours ; 1.49 days ; 29.13 hours

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Banking information
Sparkasse Heidelberg
IBAN: DE35 6725 0020 0009 2076 86
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IDENTIFIERS

Citation

TOV-112D (Cytion catalog number 305584)

NCBI TaxID	9606
Cellosaurus	CVCL_3612

EXPRESSION AND SUSCEPTIBILITY

Mutational profile

Mutation: p.Ser37Ala, Homozygous; Mutation: p.Leu639fs, Homozygous; Mutation: p.Arg175His, Unspecified

HANDLING AND CULTURE

Culture medium

MCDB 105:M199 (1:1) supplemented with 15% FBS, or DMEM/F-12 (1:1) with 10% FBS; verify from product CoA

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

Supplements

Supplement as specified: 15% FBS in MCDB105:M199 or 10% FBS in DMEM/F-12

Dissociation reagent	Accutase

Subculturing

Remove medium, wash with PBS without calcium and magnesium, cover with Accutase, incubate 8–10 min at RT, resuspend in medium, centrifuge 300×g 3 min, discard supernatant, reseed in fresh medium.

Split ratio	1 to 5
Seeding density	1 to 3 × 10^4 cells/cm^2
Fluid renewal	Every 2 to 3 days

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 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium.
Follow the procedure described under Post-Thaw Recovery

QUALITY CONTROL AND CRYOPRESERVATION

Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

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	42Y
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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