

A2780 A2780 | 300491

Description

A2780 is a human ovarian cancer cell line established in 1972. It is a highly sensitive model for studying cisplatin sensitivity and DNA damage response. A2780 cells are used in various research applications, including cisplatin sensitivity baseline models, PARP inhibitor evaluation, and platinum-based chemotherapy studies. A2780 cells are also used in xenograft models for ovarian cancer research.

Organism Human

Tissue Ovary

Metastatic site Primary tumor site (ovary)

Applications Ovarian cancer research; cisplatin sensitivity baseline model; PARP inhibitor evaluation; DNA damage response; platinum-based chemotherapy studies; xenograft models

Synonyms A-2780, 2780, 2780s

Age 1-2 years

Gender Female

Morphology Epithelial-like

Cell type Epithelial cells

Growth properties Adherent

Citation A2780 (ATCC CCL-93) | 300491

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Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_0134
GMO Status	No genetic modification; wildtype ovarian endometrioid carcinoma; parental line for A2780/DDP cisplatin-resistant derivative
Culture Medium	RPMI 1640 2.0 mM L-glutamine 2.0 mM/10 mM NaHCO ₃ (820700a)
Supplements	10% FBS
Dissociation Reagent	
Subculturing	15 min trypsin digestion in PBS
Split ratio	1 to 5
Seeding density	1 to 3 × 10 ⁴ cells/cm ²
Fluid renewal	2-3 times per week
Freeze medium	DMEM (10% FBS) + 10% DMSO

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Thawing and Culturing Cells

1. Thaw the vial rapidly in a water bath at 37°C. Do not allow the cells to reach room temperature.
2. Centrifuge the cells at 300 × g for 3 minutes at 4°C. Remove the supernatant and resuspend the cells in 10 mL of pre-warmed culture medium.
3. Seed the cells into a T75 flask containing 50 mL of pre-warmed culture medium. The final cell concentration should be approximately 1 × 10⁶ cells/mL.
4. Incubate the cells in a humidified atmosphere of 5% CO₂ at 37°C. The cells should reach 70% confluency within 24-48 hours.
5. Once the cells have reached 70% confluency, they can be passaged into a new T75 flask.
6. The cells should be passaged every 2-3 days to maintain them in the exponential growth phase.
7. For long-term storage, the cells can be cryopreserved in liquid nitrogen.
8. The cells should be tested for mycoplasma contamination regularly.

Incubation Atmosphere

37°C, 5% CO₂, humidified atmosphere

Flask Coating

Not required

Freezing Procedure

Resuspend cells in freezing medium and store in liquid nitrogen at -196°C.

Shipping Conditions

Store at -196°C during shipping.

Storage Conditions

Store at -150°C to -196°C.

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Sterility

The cells are supplied as a suspension in a sterile medium. The medium is tested for mycoplasma contamination (PCR) and found to be negative. The cells are also tested for mycoplasma contamination and found to be negative.