Product description

Epithelial ovarian cancer cell line derived from matched ascites from TOV-1946. Cell line derived from ascites of chemotherapy naive patient who presented poorly differentiated (grade 3) serous papillary cystadenocarcinoma at stage IIIC.

Name: OV-1946 cell line

Disease: Cancer

Cancer: Ovarian cancer

Organism: Human

Gender: Female

Tissue: Derived from matched ascites from case TOV-1946

Donor: Grade 3: Stage IIIC; Mutations: TP53 Exon 8; Pre-treatment

Morphology: Able to form semi- compact spheroids and expressed Krt7

Growth properties: Adherent

CRISPR Edited: No

Production details: Established from a mass of cells from ascites of patient 1946. Mass was macro-dissected and kept in 100mm petri dish for 27 days where they reached 80% confluence. Tissue was discarded and cells were divided 2:3 every week for the first 15 passages and 1:2 twice a week until passage 70. Cells were maintained and divided 1:5 twice a week afterwards.

Additional notes: Patient 1946 had no known familial history of cancer and passed from post-operative complications

Contributor(s)

Inventor(s): Anne-Marie Mes-Masson and Diane Provencher
Institute: Centre Hospitalier de L'université de Montréal

Properties

Product format: Frozen

Unpacking and storage:

1. Check all containers for leakage or breakage.
2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Recommended medium: OSE medium with 10% FBS, 0.5ug/mL amphotericin B and 50 ug/mL gentamicin

Subculture: Split confluent cultures 1:2, using 0.05% trypsin or trypsin/EDTA; 5% CO2; 37°C.

Cryopreservation: Freeze in 90% FBS and 10% DMSO at a density of 1-3 million cells/mL.

Culture conditions: 37.0°C ± 1.0°C incubator with hypoxic condition of 5% O2 and 5.0% ± 1.0% CO2

Handling instructions

1. Please ensure that vials are frozen when received, and store at **<-130 °C long term**. When removing frozen cells from storage, it is important to minimize exposure to room temperature (15 - 25°C). If not proceeding directly to thawing, place the cells on dry ice or in a liquid nitrogen container.
2. **Do not thaw at room temperature.** To thaw, swirl the vial quickly in a 37 °C water bath with O-ring and cap above the water to avoid contamination. Remove from the water bath with a small ice pellet remaining (this should not take more than 2 minutes) and wipe the exterior with 70% ethanol or isopropanol before transferring to a biosafety cabinet. Further steps should be conducted under aseptic conditions.
4. Immediately transfer the thawed cell suspension to a 100 mm culture dish containing 7 mL of media. Allow the cells to settle overnight and replace the culture medium the next morning.

Important notes:
- The cell line can be cultured in DMEM instead of OSE medium, but this is not recommended long term as the cells exhibit altered morphology and suboptimal growth kinetics in these conditions.
- The cell line can be cultured under normal oxygen conditions, but morphology will be altered.

References

- Vias et al. 2023. Elife. 1112: e83867. PMID: 37166279
- Sevinyan et al. 2022. Cancers (Basel). 1614(22):5628. PMID: 36428724
- Asare-Werehene et al. 2023. Cancers (Basel). 3015(9):2566. PMID: 37174032
- Fleury et al. 2015. Genes & Cancer 6(9-10): 378-398. PMID: 26622941

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: OV-1946 cell line, was invented by Anne-Marie Mes-Masson and Diane Provencher (CancerTools.org #161771).