Product description

Epithelial ovarian cancer cell lines spontaneously derived from high-grade serious ascites. The patient harbored BRCA1:IVS14-1G>T mutation.

Name: OV-4485 cell line

Disease: Cancer

Cancer: Ovarian cancer

Organism: Human

Gender: Female

Tissue: Derived from ascites

Donor: Patient 4485 was age 55 at diagnosis, BRCA hereditary status was BRCA1(+), and no prior personal history of cancer. Patient received Carboplatin/taxol, interval surgery, and was later in a clinical trial (maintenance sorafenib vs placebo).

Morphology: Formed loosely compact spheroids with irregular margins

Growth properties: Adherent

CRISPR Edited: No

Production details: Established from the cellular fraction of ascites collected by centrifugation. The cell lines were then maintained for 40 days in OSE with medium replaced weekly.

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 **7% O_2** and 5.0% ± 1.0% CO_2

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-4485 cell line, was invented by Anne-Marie Mes-Masson and Diane Provencher (CancerTools.org #161788).