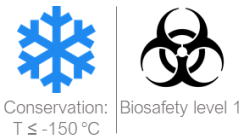
Human Umbilical Vein Endothelial Cells

Product sheet, catalog n° CTICC1.14

General Information

- **Organism:** Human (*Homo sapiens*)
- **Tissue:** Umbilical cord
- **Cell Type:** Umbilical vein endothelial cells from single donor
- **Location:** Stem cell extracted from the vein of umbilical cord
- **Gender:** Male or Female (see Certificate of Analysis)
- **Age:** Newborn (see Certificate of Analysis)
- **Phototype (Fitzpatrick scale):** (see Certificate of Analysis)



Cell Characteristics

- **Cell properties:** Adherent
- **Morphology:** Cobblestone shape
- **Isolation:** Enzymatic dissociation
- **Cell passage:** P0 to P2 (see Certificate of Analysis)
- **Minimum number of population doublings:** 15
- **Cell viability:** Minimum 80% viability when thawed from cryopreservation
- **Cell conditioning:** Supplied as vials of 1.10^6 cells
- **Cryopreservation medium:** Frozen with 90% serum-free cryopreservation medium + 10% DMSO
- **Storage condition:** Liquid nitrogen
- **Batch specific information:** Included in the Certificate of Analysis

Safety and Quality Control

- **Biosafety level:** 1
- **Contamination:** Use mandatory laboratory protections and handle with care tissues and cells derived from human samples to avoid any contamination of the operator.
- **Viral testing:** Negative for HIV, HBV, HCV
- **Sterility testing:** Negative for mycoplasma, bacteria and yeasts

Handling upon delivery and storage

- Check that the containers are intact and free of damage
- If cells are not used immediately, place the vials at -150°C or below upon delivery

Thawing and culturing procedure for frozen cells

1 - Add 0,12 ml per cm² of medium to the culture vessel
2 - Add 13 ml of PBS solution to a 15 ml conical tube, and warm in a water bath to 37 ˚C
3 - Thaw cryovial by swirling in a water bath at 37 ˚C. As soon as the content has thawed, start step 4
4 - Once thawed, add the cell suspension to the warmed PBS in sterile conditions
5 - Spin the tube at 250 g for 7 minutes to pellet the cells
6 - Resuspend the cells in the appropriate volume of recommended medium

7 - Seed the cells in the culture vessel at a concentration of 5 000 to 10 000 cells per cm²
8 - Incubate at 37˚C, 5% CO_2 atmosphere, 95% humidity
9 - After 24 hours of incubation, change the medium to remove any debris
10 - Continue to incubate and change the medium every 3-4 days.

Subculturing

1- Start subculturing when cells reached 70%-80% confluence
2 - Preheat TrypLE (non toxic for cell - trypsin substitute) and recommended medium.
3 - Remove the medium from the flask
4 - Wash the cells quickly with PBS without Ca2+ Mg2+
5 - Add 0,06 mL per cm² of TrypLE for 5-15 min at 37 °C in the incubator
6 - Remove the cells from the flask by pipetting several times and wash the flask with recommended medium for remaining cells
7 - Centrifuge the cells in recommended medium at 250 g for 7 minutes to pellet the cells
8 - Remove the supernatant and resuspend the pellet in recommended medium
9 - Seed the cells in the culture vessel at a concentration of 5 000 cells per cm²
10 - Incubate at 37 ˚C, 5% CO_2 atmosphere, 95% humidity
11 - After 24 hours of incubation, change half of the medium to remove any debris
12 - Continue to incubate and change half of the medium every 3-4 days.

Associated products

- CTICC.1.11: Human Amniotic Membrane Epithelial Stem Cells, Cryopreserved, 10^6 cells
- CTIINT.1.5: Human Amniotic Membrane, Fresh, 1cm²
- CTIINT.1.1: Human Placenta, Full Thickness, Fresh, $1cm^3$
- CTIINT.1.9: Human Umbilical Cord, Fresh, 1cm

Provisions

- Cells and tissues are intended for **research use only** and shall not be used for human trials, animal trials, or diagnostics.
- **Consent:** the original tissues have been obtained after informed consent of the patient under the provisions required by French Law.
- **Primary Human cells** are not immortalised cell lines and may not be continually subcultured.

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