Human Umbilical Vein Endothelial Cells

Catalog No.	Product Name	Product quantity	Short-term Storage	Long-term Storage	Thawing Instructions
ax3811	Umbilical Vein Endothelial Cells	500,000 cells/vial	Liquid nitrogen	Liquid nitrogen	See below
ax3812	Umbilical Vein Endothelial Cell Culture Medium	500 mL	4°C for 1 month	-20°C for 6 months	Thaw at 4°C or RT

Lot-specific information such as donor details and passage number are stated in the Certificate of Analysis for each product.

Recommendations:

Always count the number of viable cells after thawing

- Recommended culture vessel coating: Not required
- Recommended cell culture medium: **Umbilical Vein Endothelial Cell Culture Medium**
- Recommended seeding density: **2,500-5,000 viable cells/cm^2**
- Recommended centrifugation speed: **150 x *g*** for **5 min**

Thawing & Plating:

- Transfer the vial of cells from liquid nitrogen storage with the vial buried in dry ice. Remove the vial from dry ice and transfer it immediately to a **37°C** water bath.
- Thaw the cells quickly in a **37°C** water bath until just prior to complete thawing.
- Wipe the outside of the vial with 70% ethanol.
- Gently resuspend the cells and take an aliquot to perform a cell count.
- **Immediately after thawing**, slowly dilute the cells into the required volume of pre-warmed **Umbilical Vein Endothelial Cell Culture Medium** (must be at least **10 mL** so that the concentration of DMSO is less than 1%).
- Rinse the cryovial with **1 mL** of **Umbilical Vein Endothelial Cell Culture Medium** to ensure all of the cells are transferred.
- Seed cells into the culture vessel at the recommended seeding density of **2,500-5,000 viable cells/cm^2**.
- Incubate the cells at **37°C**, **5% CO_2** in a humidified incubator.
- Once the cells have attached (after 6-24 h), replace the culture medium with fresh, pre-warmed **Umbilical Vein Endothelial Cell Culture Medium**.
- Frequency of media changes: **Every 2 days**

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Passaging:

The endothelial cells should not be allowed to reach 100% confluency since the growth rate may reduce. For maximal growth, passage cells before confluency.

- Passage when the culture reaches: **80% confluent**
- Recommended passaging reagent: **Trypsin-EDTA**

- After adding passaging reagent, incubate the cells for **5 min** at **37°C**. Observe the cells at regular intervals for detachment from the culture vessel.
- Once the cells have detached, dilute out the trypsin with pre-warmed **Umbilical Vein Endothelial Cell Culture Medium**.
- Centrifuge the cells at **150 x *g*** for **5 min**.
- Remove the supernatant and resuspend the cell pellet in 1-2 mL of pre-warmed **Umbilical Vein Endothelial Cell Culture Medium**.
- Perform a cell count to determine the number of viable cells.
- Dilute the cells into the required volume of pre-warmed **Umbilical Vein Endothelial Cell Culture Medium**.
- Seed cells into the culture vessel at the recommended seeding density of **2,500-5,000 viable cells/cm^2**.
- Incubate the cells at **37°C**, **5% CO_2** in a humidified incubator.

Usage Statement:

Our products are intended for research use only and are not to be used for any other purpose, which includes but is not limited to, unauthorized commercial uses, *in vitro* diagnostic uses, *ex vivo* or *in vivo* therapeutic uses or any type of consumption or application to humans.

Got any questions? Need help with the protocol?
Contact Axol Technical Support at **support@axolbio.com**
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