Human CD34⁺ Hematopoietic Progenitor Cells

Catalog No.	Product Name	Product quantity	Short-term Storage	Long-term Storage	Thawing Instructions
ax3400	Cord Blood CD34⁺ Progenitor Cells (Pooled)	100,000 cells/vial	Liquid nitrogen	Liquid nitrogen	See below
ax3402	Cord Blood CD34⁺/CD38⁻ Progenitor Cells (Pooled)	100,000 cells/vial	Liquid nitrogen	Liquid nitrogen	See below
ax3405	Peripheral Blood Mobilized CD34⁺ Progenitor Cells	5 million cells/vial	Liquid nitrogen	Liquid nitrogen	See below
ax3455	Leukocyte Plating & Maintenance Medium	100 mL	Store at 4°C for up to 1 month	Aliquot and store at -20°C for up to 6 months	Thaw at 4°C or at room temperature

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: **Leukocyte Plating & Maintenance Medium**
- Recommended seeding density: **As required**
- Recommended centrifugation speed: **400 x *g*** for **10 minutes**

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 transfer to a 15 mL sterile conical tube.
- Slowly add **10 mL** of pre-warmed, **37°C**, **Leukocyte Plating & Maintenance Medium**.
- Rinse the cryovial with 1 mL of **Leukocyte Plating & Maintenance Medium** to ensure all of the cells are transferred.
- Centrifuge the cells at **400 x *g*** for **10 min**.

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- Carefully remove the supernatant and resuspend the cell pellet in **2 mL** of pre-warmed, **37°C**, **Leukocyte Plating & Maintenance Medium**.
- Perform a cell count to determine the number of viable cells.
- Dilute the cells into the required volume of pre-warmed, **37°C**, **Leukocyte Plating & Maintenance Medium**.
- Seed cells into the culture vessel at the required seeding density.
- Proceed with experiment assays.
- Incubate the cells at **37°C**, **5% CO_2** in a humidified incubator.

Passaging:

The $CD34^+$ hematopoietic progenitor cells should be used directly for endpoint assays and should not be cultured long-term or passaged. The **Leukocyte Plating & Maintenance Medium** is designed to maintain hematopoietic cells after thawing and minimize cell clumping. The hematopoietic progenitors will not proliferate without the addition of activating cytokines and growth factors. Expansion of the cells may lead to a loss of cell types and dominance of certain subtypes. The expanded cells may also exhibit dependency on the particular cytokines and growth factors used.

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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