Human Peripheral Blood CD56+ Natural Killer Cells (V158+) Negatively Selected

Cat No	Pack Size
KD10283	5 x 10^6
KD10284	10 x 10^6

Product Description

Cryopreserved CD56+ natural killer (NK) cells (V158+) have been isolated from healthy donors expressing FcγR111a (with the valine isoform at position 158 of CD16).* These specifically sourced and selected NK Cells have displayed greater functional NK cell activity (vs normal population) within the in vitro Antibody-Dependent Cell-Mediated Cytotoxicity (ADCC) assay. ADCC is considered to be an important mechanism by which antibodies kill targeted tumor cells.

Sample Collection and Processing

CD56+ NK cells are collected from peripheral blood (PB) mononuclear cells of normal human volunteers using the standardized collection protocol. All donors have been tested and determined negative for transmissible infectious diseases with the standard panel of tests (please see Certificate of Analysis). CD56+ NK cells are enriched by negative selection using an immune magnetic cell separation method consisting of an antibody cocktail to target and deplete non-CD56+ cells.

Purity

Purity of PB CD56+ NK (V158+) cells is ≥90% as measured by flow cytometric analysis.

Stability and Storage

- Cells are cryopreserved in
- Cells are stable for long-term storage at -152^{o}C or in the gaseous phase of liquid nitrogen.
- Storage at -80ºC is not recommended. Once thawed, the cells must be used immediately and have a finite life span in culture.

Thawing Protocol

1. Remove the vial of cells from dry ice (upon receipt of shipment), from the -152°C freezer or the gaseous phase of liquid nitrogen and place vial in a 37°C water bath for 1 minute or until the cells begin to thaw. Ensure that the vial is not completely submerged and water does not enter the vial.
2. Remove vial from the water bath and wipe the outside with 70% isopropanol or ethanol to sterilize.

3. In a Class II Biosafety Cabinet, using a 2 mL pipette, transfer cells into a 15 mL tube containing 10 mL of IMDM + 10% FBS or appropriate culture medium. (all work inside the hood should be performed with sterile instruments and reagents)
4. Use 1 mL of IMDM + 10% FBS or appropriate culture medium to wash the vial. This ensures that any remaining cells in the vial are recovered. Add rinse volume to the 15 mL tube.
5. Centrifuge the 15 mL tube containing cells at 400 x *g* for 8 minutes.
6. After centrifugation, decant and discard supernatant. If the cells will not be used immediately after resuspension, add DNase at 1µg/mL final to prevent cells from clumping.
7. Resuspend the cell pellet in a small volume of IMDM + 10% FBS or appropriate culture medium (~1 mL) and measure the total volume of cells (total volume is required for cell recovery and viability calculations).
8. Perform a viable cell count using glacial acetic acid and trypan blue.
9. Suspend cells at the appropriate concentration for your specific assay.
10. When thawing >10 million cells, transfer cells into a 50 mL tube containing 40 mL of IMDM + 10% FBS or appropriate culture medium.

THIS PRODUCT IS FOR IN VITRO RESEARCH USE ONLY

This product is NOT intended or approved for human or veterinary use, or for use in clinical diagnostic or therapeutic procedures.