Human NK Cell Purification Cocktail (K005)

Negative Enrichment · High Activity · No magnetic Sorter Required · Easy-to-Use

Human NK Cell Purification Cocktail (K005) is a rapid isolation kit for human natural killer (NK) cells. It uses specific antibodies to label non-NK cells in fresh blood samples, crosslinking them with red blood cells for sedimentation. After a simple centrifugation step, highly pure and active NK cells are enriched. The procedure is straightforward and requires no complex equipment, suitable for a wide range of downstream applications.

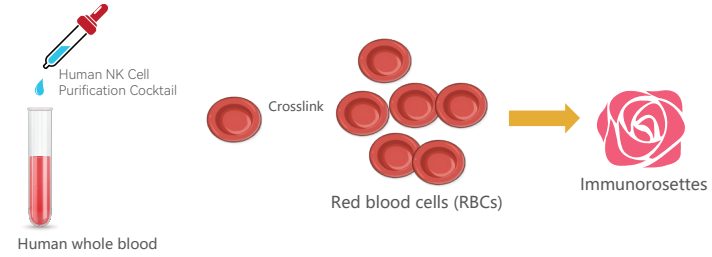
Product Information

Cat#	Product Name	Specification	Quantity	Storage
K005	Human NK Cell Purification Cocktail	1 Kit	1	-20℃

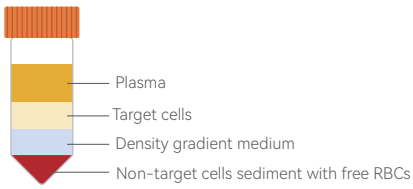
Technical Principle

Human NK Cell Purification Cocktail (K005) enriches NK cells from human whole blood using negative selection. It crosslinks non-target cells to multiple red blood cells (RBCs), forming dense immunorosettes. During density gradient centrifugation, these rosettes sediment along with free RBCs, while target NK cells remain unlabeled and highly enriched, allowing them to be easily collected at the interface between the plasma and the density gradient medium.

Crosslinking of non-target cells and RBCs



Cell Collection For downstream applications



Product Advantages

Comparison	Magnetic beads negative selection	Density Gradient Centrifugation Sorting	EastMabBio K005
Isolation Principle	Immune recognition	Physical isolation	Physical + Immune recognition
Cell Yield	Low (Column-based)	High	High
Feature	High purity	Easy-to-use, Low cost	High purity, Easy-to-use, Low cost

- **High-Purity Enrichment:**
  Efficient separation with exceptional purity through the combination of immune recognition and density gradient centrifugation.
- **Preserved Cell Viability:**
  Cells remain in their native state without antibody crosslink, ideal for diverse research applications.
- **Simple and Fast Workflow:**
  Complete isolation in 60 minutes using only a standard centrifuge, no magnetic sorter needed.
- **Broad Sample Compatibility:**
  Suitable for multiple sample types such as human peripheral blood and umbilical cord blood.
- **Ready-to-Use Kit:**
  Pre-mixed antibody cocktail, ready for use upon reconstitution, saving optimization time.

Operation Process

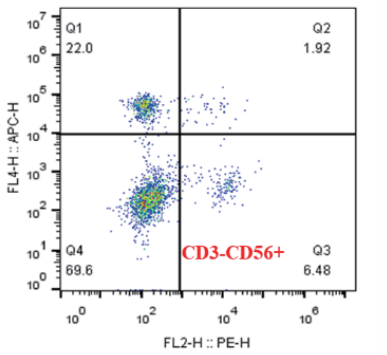
Collect blood sample ▶ Centrifuge and inactivate the plasma (the upper plasma layer for later use, and the lower layer for cell purification) ▶ Add K005 to sample ▶ Incubate ▶ Density gradient centrifugation ▶ Collect ▶ Resuspend cells for downstream applications

For detailed protocol, please refer to the product data sheet.

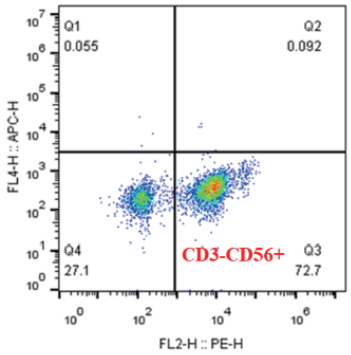
Purity Assessment

Purity of NK cell ($CD3^-$ $CD56^+$) with assessed by flow cytometry.

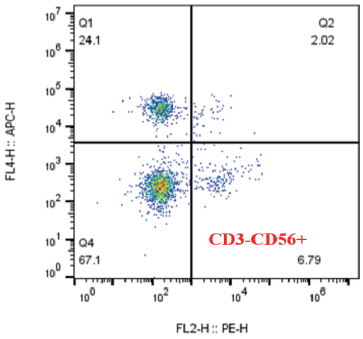
PBMC isolation from fresh blood (Start)



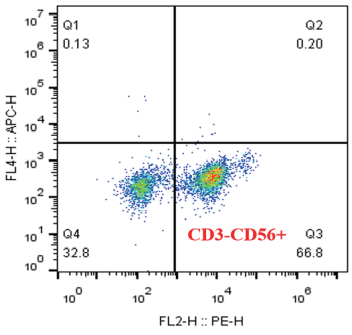
PBMC isolation from fresh blood (K005 Purified)



CBMC isolation from fresh blood (Start)



CBMC isolation from fresh blood (K005 Purified)



Flow cytometry analysis demonstrated that NK cell purity in human whole blood sample increased significantly from 6.48% to 72.7% after using the Human NK Cell Purification Cocktail (K005). Similarly, starting with human cord blood, NK cell purity was enriched from 6.79% to 66.8% following purification with the same kit.