iPSC-Derived Natural Killer (NK) Cell Kit (Normal, Diseased, Engineered)

Product Description

iPSC-Derived Natural Killer (iNK) Cells provide a renewable and standardized platform for advancing immunology and cancer research. Generated from human induced pluripotent stem cells, these NK cells recapitulate the phenotype and cytotoxic functions of primary NK cells while offering unlimited scalability and consistency. Each lot is rigorously characterized by robust CD45 and CD56 expression and functionally validated by their ability to kill cancer cells in vitro, ensuring quality and reproducibility.

We are building a panel of iPSC-derived NK cells from patients with immunodeficiency diseases, enabling disease-specific modeling and therapeutic development.

iPSC-derived NK cells (iNKs) are ideally suited for studies of innate immunity, cancer immunotherapy development, drug screening, cytotoxicity assays, and regenerative medicine applications, providing a powerful resource for both basic research and translational science.

Stability and Storage

Upon receipt, immediately transfer the cells from dry ice to liquid nitrogen storage, and maintain them in liquid nitrogen until ready for experimental use.

Shipping

Cryopreserved cells are shipped on dry ice. Live cells are shipped at ambient temperature.

Product Use

The products are for research use only. They are not approved for human or animal use, or for application in in vitro diagnostic procedures.

Contact Us

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Quality Control:

Catalog Number	**ILC-2009**
Organism	*Homo sapiens*
Donor/Tissue/Medical History	See CoA for the detailed information
Product Format	Cryopreserved, or Live Cell Culture
Culture Properties	Suspension
Total Cell Number	1x10^6 cells/vial
Viability	>80%
Human Pathogen	Negative
Bacterial, Fungi, Mycoplasma	Negative
Biomarker Expression	Positive (>90% of CD45/CD56 and other markers)
Functional Test	Phagocytosis of K562 cells

Representative Data:

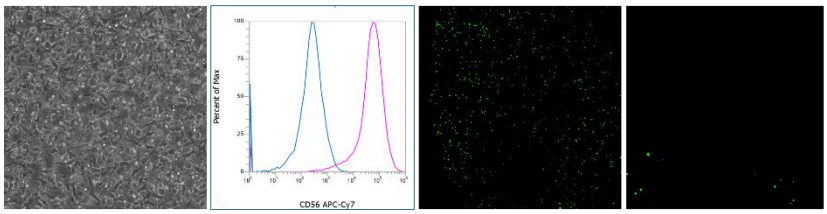

Figure 1. Left 1: Bright field image of iNK cells; Left 2: FACS analysis using CD56 antibody; Right: K562 cells were prelabeled with Calcein AM (Green). The prelabeled K562 cells were co-cultured with iNK cells for 12 hours (Right 1: E/T:1, Right 2: E/T: 5).

Cell Thawing and Culture Protocol:

1. Thaw one vial of iNK cells (Catalog Number ILC-2009) and one vial of iNK feeder cells (Catalog Number ILC0009F) rapidly in a 37 °C water bath.
2. Transfer and combine the thawed cells into a 15 mL conical tube.
3. Gently add 2 mL of iNK Culture Media (Cat# ILC0009M) to the tube.
4. Centrifuge at 200 × g for 2 minutes at room temperature.
5. Carefully aspirate the supernatant.
6. Resuspend the cell pellet in 4 mL of iNK Culture Media.
7. Seed the cells onto Non-treated TC plates (typically, one vial of iNK and one vial of iNK feeder cells yield 2 wells of a 6-well plates).
8. Gently distribute the cells evenly across the wells.
9. Incubate overnight at 37 °C in a CO_2 incubator.
10. Half change media every other day.

Related Products:

iNK Culture Medium (Catalog Number: ILC0009M) is specifically formulated to support iPSC-derived Natural Killer cells (iNK) recovery and expansion in the presence of iNK Feeder Cells (Catalog Number: ILC0009F).