iPSC-Derived Megakaryocyte Kit (iMegakaryocytes) (Normal, Diseased, Engineered)

Product Description

iPSC-Derived Megakaryocytes (iMegakaryocytes) provide a renewable and standardized platform for studying platelet biology, hematopoiesis, and related disorders. Derived from human induced pluripotent stem cells, iMegakaryocytes recapitulate the morphology and function of primary megakaryocytes while eliminating the variability of donor-derived cells. Each lot is rigorously validated by strong expression of CD41a (Integrin αIIb) and CD42b (GPIbα), confirming megakaryocyte lineage identity and maturation potential.

We are developing a panel of iPSC-derived megakaryocytes from patients with blood and platelet-related diseases, creating disease-specific models for mechanistic studies and translational applications.
iMegakaryocytes are ideally suited for studying platelet production, modeling thrombocytopenia and other platelet disorders, drug screening, gene editing validation, and regenerative medicine approaches, providing a scalable, reliable, and physiologically relevant tool for advancing hematology and translational research.

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-2014**
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	>90%
Human Pathogen	Negative
Bacterial, Fungi, Mycoplasma	Negative
Biomarker Expression	Positive (>90% of CD41a+/CD42b+)

Representative Dataset:

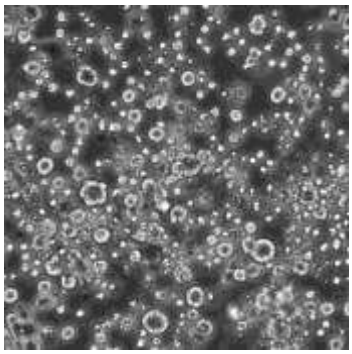

Figure 1. Bright Field Image of iMegakaryocytes.

Cell Thawing and Culture Protocol:

1. Thaw the cells rapidly in a 37 °C water bath.
2. Transfer the thawed cells into a 15 mL conical tube.
3. Gently add 2 mL of iMegakaryocyte Culture Media (Cat# ILC0014M) 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 2 mL of iMegakaryocyte Culture Medium.
7. Seed the cells onto Matrigel coated plates (typically, one vial yields 1 well of a 6-well plate).
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:

iMegakaryocyte Culture Medium (Catalog Number: ILC0014M) is specifically formulated to support iPSC-derived Megakaryocyte (iMegakaryocyte) recovery and maintenance.