iPSC-Derived Myoblast Kit
(Normal, Diseased, Engineered)

Product Description

iPSC-Derived Myoblasts provide a renewable, standardized, and physiologically relevant model for skeletal muscle research. Generated from human induced pluripotent stem cells, these myogenic precursors closely resemble primary myoblasts while offering unlimited scalability. Each lot is rigorously characterized by strong expression of CD56, MyoD, and myogenin, confirming their myogenic identity and quality. Upon differentiation, the cells efficiently form multinucleated myotubes, validated by MHC staining and characteristic morphology.

We are establishing a panel of iPSC-derived myoblasts (iMyoblasts) from patients with muscle degenerative diseases, enabling disease modeling, mechanistic studies, and therapeutic development in a patient-specific context.

iPSC-derived myoblasts (iMyoblasts) are ideally suited for studies of muscle development, regeneration, drug screening, gene therapy testing, and regenerative medicine applications, offering a reliable platform for advancing muscle biology 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-2004**
Organism	*Homo sapiens*
Donor/Tissue/Medical History	See CoA for the detailed information
Product Format	Cryopreserved, or Live Cell Culture
Culture Properties	Adherent
Total Cell Number	1x10^6 cells/vial
Viability	>90%
Human Pathogen	Negative
Bacterial, Fungi, Mycoplasma	Negative
Biomarker Expression	Positive (>90% of CD56+)
Myotube Formation	Pass (>80% of MHC+)

Representative Data:

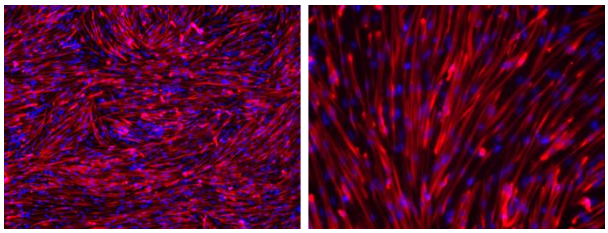

Figure 1. Antibody staining images of iMyoblast (Red: MHC; Blue: DAPI; Left: 1x; Right: 20x).

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 iMyoblast Culture Media (Cat# ILC0004M1) 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 iMyoblast Culture Media.
7. Seed the cells onto Matrigel-coated plates (typically, one vial yields 2 wells 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. Change media daily until the cells grow confluent.
11. Switch to iMyoblast Maturation Media (Cat# ILC0004M2)
12. Myotube should be formed in 2-3 days.

Related Products:

iMyoblast Culture Medium (Catalog Number: ILC0004M1) is specifically formulated to support iPSC-derived Myoblast (iMyoblast) recovery and expansion. iMyoblast Maturation Medium (Catalog Number: ILC0004M2) is specifically formulated to support iPSC-derived Myoblast (iMyoblast) maturation.