Induced Pluripotent Stem Cell (iPSC) (Normal, Diseased, Engineered)

Product Description

Induced pluripotent stem cell (iPSC) lines in our collection are generated from dermal fibroblasts or peripheral blood mononuclear cells (PBMCs) obtained from a diverse panel of donors, including both healthy individuals and patients with specific diseases. These iPSCs provide a renewable, patient-relevant resource for modeling human biology and disease.

In addition, engineered iPSC lines are established from these donor-derived cells through precise genetic modification methods such as viral transduction or CRISPR/Cas9-based editing, enabling the creation of custom isogenic controls or reporter systems.

All iPSC lines have undergone comprehensive quality control and characterization, ensuring their suitability for downstream applications. They have been successfully utilized for generating isogenic pairs, studying disease mechanisms, and differentiating into multiple specialized cell types for applications in drug discovery, toxicity screening, and regenerative medicine 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-1001, ILC-1002, ILC-1003**
Organism	*Homo sapiens*
Donor/Tissue/Medical History	See CoAs for detailed information
Product Format	Cryopreserved, or Live Cell Culture
Culture Properties	Adherent
Total Cell Number	1x10^6 cells/vial (in small clumps)
Viability	>80%
Human Pathogen	Negative
Bacterial, Fungi, Mycoplasma	Negative
Pluripotency Markers	Positive (>95%)
G-banding Karyotype	Normal
Tri-lineage Differentiation	Normal

Representative Dataset:

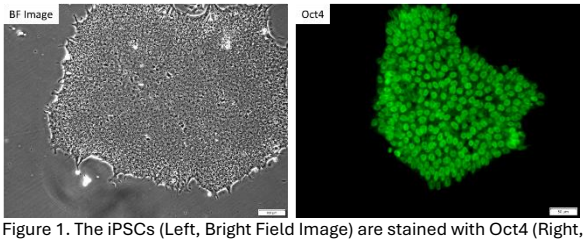

Figure 1. The iPSCs (Left, Bright Field Image) are stained with Oct4 (Right, Green: Oct4).

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 mTeSR-Plus (or equivalent medium) 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 6–12 mL of mTeSR-Plus (or equivalent medium). supplemented with 10 µM ROCK inhibitor (Y-27632).
7. Seed the cells onto Matrigel-coated plates (typically, one vial yields 3–6 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. On the following day, replace the medium without ROCK inhibitor, and continue daily medium changes for 5–7 days before passaging.

Related Products:

MEF feeder cells could be used to support iPSC derivation and expansion.