



### Product Description

iPSC-Derived Cardiomyocytes provide a robust and physiologically relevant model for cardiac research and drug discovery. Generated from human induced pluripotent stem cells, these cells recapitulate the structural and functional properties of heart muscle, offering an unlimited and standardized alternative to primary cardiomyocytes. Each lot is rigorously validated by strong expression of cardiac troponin T (cTnT) and by a characteristic synchronized beating pattern, ensuring quality and consistency.

We are developing a panel of cardiomyocytes derived from iPSCs from patients with heart diseases, enabling disease modeling and translational studies in a patient-specific context.

iPSC-derived cardiomyocytes (iCardiomyocytes) are ideally suited for cardiac physiology studies, electrophysiology assays, cardiotoxicity screening, drug discovery, gene therapy evaluation, and regenerative medicine applications. Quality-controlled and ready-to-use, they provide a reliable platform for advancing cardiovascular 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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## iPSC-Derived Cardiomyocyte Kit (Normal, Diseased, Engineered)

### Quality Control:

<b>Catalog Number</b>	<b>ILC-2005</b>
<b>Organism</b>	<i>Homo sapiens</i>
<b>Donor/Tissue/Medical History</b>	See CoA for the detailed information
<b>Product Format</b>	Cryopreserved, or Live Cell Culture
<b>Culture Properties</b>	Adherent
<b>Total Cell Number</b>	1x10 <sup>6</sup> cells/vial
<b>Viability</b>	>80%
<b>Human Pathogen</b>	Negative
<b>Bacterial, Fungi, Mycoplasma</b>	Negative
<b>Biomarker Expression</b>	Positive (>80% of cTnT+)
<b>Beating Pattern</b>	Synchronized

### Representative Data:

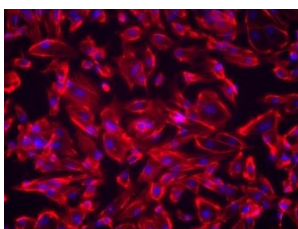


Figure 1. Antibody staining images of iCardiomyocyte (Green: cTnT; Blue: DAPI).

### 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 iCardiomyocyte Culture Media (Cat# ILC0005M) 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 iCardiomyocyte Culture Media supplemented with 2uL Rock inhibitor (Y27632).
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<sub>2</sub> incubator.
10. Remove Y27632 by changing media.
11. Change media every other day.
12. Cells should start beating in 3-5 days.

### Related Products:

iCardiomyocyte Culture Medium (Catalog Number: ILC0005M) are specifically formulated to support iPSC-derived cardiomyocyte (iCardiomyocyte) recovery and maintenance.