iPSC-Derived Kidney Organoids Kit(iKidney) (Normal, Diseased, Engineered)

Product Description

iPSC-Derived Kidney Organoids (iKidney) provide a physiologically relevant 3D model for studying kidney development, function, and disease. Generated from human induced pluripotent stem cells, iKidney organoids recapitulate key structural and functional features of renal tissue, including nephron-like structures and supporting stromal cells. Each lot is rigorously characterized by expression of PAX2 and E-cadherin (CD324), and functionally validated for tubular organization and polarity, ensuring reproducibility and high quality.

We are developing a panel of iKidney organoids from iPSCs derived from patients with kidney-related diseases, enabling disease-specific modeling and translational studies.

iKidney organoids are ideally suited for renal physiology research, nephrotoxicity testing, disease modeling, drug discovery, and regenerative medicine applications, providing a standardized, scalable, and reliable platform for advancing kidney biology and precision medicine.

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-2021**
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	400 organoids /vial
Viability	>90%
Human Pathogen	Negative
Bacterial, Fungi, Mycoplasma	Negative
Biomarker Expression	Positive (>80% of CD324+)

Representative Dataset:

Figure 1. Antibody Staining Image (Green: C-cadherin; 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 iKidney Culture Media (Cat# ILC0021M) to the tube.
4. Centrifuge at 100 × g for 2 minutes at room temperature.
5. Carefully aspirate the supernatant.
6. Gently resuspend the cell pellet in 2 mL of iKidney Culture Medium.
7. Seed the organoids onto Non-treated TC plates (typically, one vial yields 1 well of a 6-well plate).
8. Gently distribute the organoids evenly across the wells.
9. Incubate overnight at 37 °C in a CO_2 incubator.
10. Change media daily.

Related Products:

iKidney Culture Medium (Catalog Number: ILC0021M) is specifically formulated to support iPSC-derived Kidney Organoid (iKidney) recovery and maintenance.