

Cardiac organoid cryopreservation kit

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Cat. No. : RIPO-HWM005

Description

The cardiac organoid cryopreservation kit is an optimized cryopreservation solution that allows whole cardiac organoid freezing at -80°C and fast recovery. The kit supports high freeze/thaw viabilities with maximize function preserved.

Product Specification

This cryopreservation kit is a serum-free, well-defined medium set with minimal batch variation. The cryopreservation medium contains DMSO.

Product Information

Name	Size	Shipment	Storage
Cardiac organoid cryopreservation medium	4ml*3/50 tests 1ml/5 tests	Dry ice	The unopened products are stable for 6 months from the date of manufacture if stored under -80°C.
Cardiac organoid recovery medium	9ml*3/50 tests 2.5ml/5 tests	Dry ice	The thawed products can be stored under 2-8°C for two weeks.

Materials Required for Organoid Culture

- Ultra-Low Adherent 6 Well plate
- Ultra-Low Adherent 48 Well plate
- Programmed cell freezing container
- Cell freezing tube
- Human iPSC-Derived Cardiac Organoid Maintenance Kit (Cat. RIPO-HWM004)

Equipment Required

- Incubator (37°C, 5% CO₂)
- Orbital shaker (2 mm shaking diameter)

- Biosafety cabinet
- Refrigerator -80°C

Instruction of Use

Cryopreservation

Note: The cryopreservation can only be realized on cardiac organoids that have already cultured to the Maintenance stage (11 days+ of Acrobiosystems culture system). The cryopreservation performance of organoids may vary depending on organoids state, age, culture system and the quality of the initial ips cell line.

- Transfer each cardiac organoid into a cell freezing tube. Aspirate out the culture medium transferred with the organoid as possible and avoid causing damage to the organoid.
- Add 200 µl of cryopreservation medium into each tube.
- Put the tubes into a programmed cell freezing container.
- Put the programmed cell freezing container into the refrigerator at -80°C, keep overnight.
- Transfer the tube to other containers if necessary.

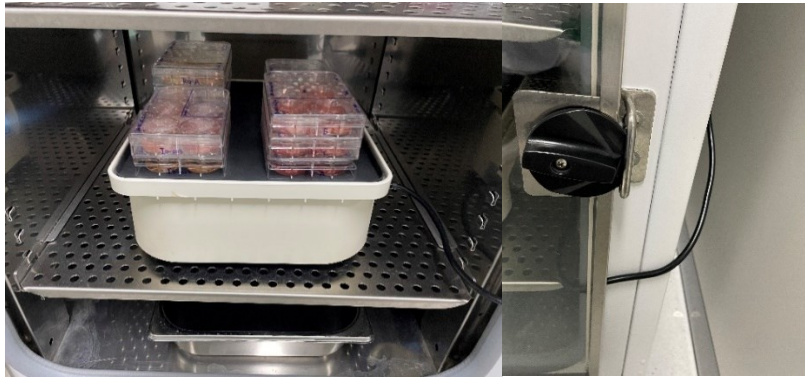
Note: The cryopreserved organoids can be stored under -80°C for one year. Liquid nitrogen storage is not recommended.

Recovery

- Take the cryopreserved organoids out from the refrigerator. Put the tubes into a water bath of 37°C for 1 min. (Shake the tubes gently with hands to accelerate thawing the organoids.)
- Verify the organoids are fully thawed.
- Transfer the organoids into the Ultra-Low Adherent 48 Well plate with 1 organoid per well
- Add 500 µl of recovery medium in each well, incubate for 48 h.

Culture

- Transfer the organoids into the Ultra-Low Adherent 6 Well plate with in maximum 24 organoids per well
- Add 5 ml of maintenance medium (Human iPSC-Derived Cardiac Organoid Maintenance Kit, RIPO-HWM004) per well.
- Put the plate on an orbital shaker (as shown figures) with the speed of 100 rpm. Incubate at 37°C, 5% CO₂.
- Full-medium change every other day.



Note: Organoids cannot be passaged.

Related Products

Product	Cat. No.
Human iPSC-Derived Cardiac Organoid Maintenance Kit	RIPO-HWM004