

# Human iPSC-Derived Intestinal Organoid Maintenance Kit

## Human iPSC-Derived Intestinal Organoid Maintenance Kit

Cat. No. : RIPO-IWM006

### Product Description

Intestinal organoids are three-dimensional *in vitro* models with a cellular composition and structural organization that are representative to the human intestine region. Human iPSC-Derived Intestinal Organoid Maintenance Kit (Cat. No. RIPO-IWM006) allows long-term maturation and maintenance of intestinal organoids.

### Product Specification

The basic medium of this kit is a serum-free, well-defined medium with minimal batch variation to which differentiation factors are added. This medium does not contain antibiotics, the addition of which may affect intestinal organoid maintenance.

### Product Information

Name	Component #	Size	Storage	Shelf Life
Intestinal organoid Basal medium MM	RIPO-IWM006-C01	225 ml	4°C	Stable for 1 years from date of manufacture (MFG) on label
Intestinal organoid Supplement MM	RIPO-IWM006-1-C01	25 ml	-20°C	Stable for 1 years from date of manufacture (MFG) on label

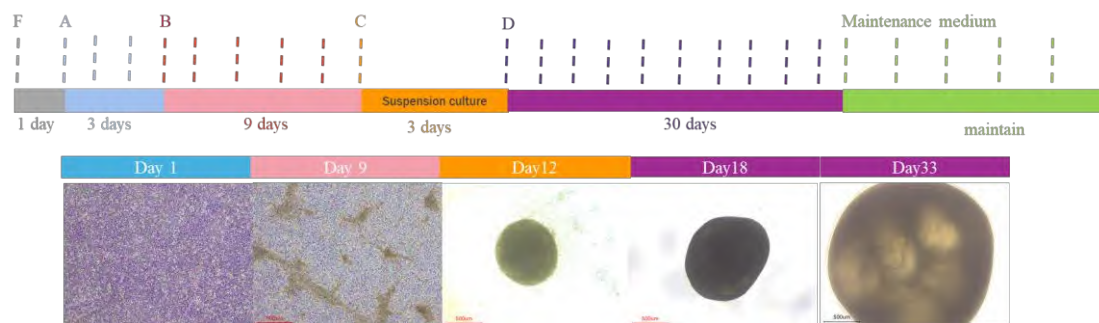
### Materials Required but Not Included

- Ultra-Low Adherent 96-well Plate
- Ultra-Low Adherent 6-well Plate

### Equipment Required

- Incubator (37°C, 5% CO<sub>2</sub>)
- Low-speed Centrifuge (with a swinging bucket rotor and an adaptor for plate holders)
- Orbital Shaker (any brand, 2 cm shaking diameter)
- Biosafety Cabinet

## Protocol Diagram



*Fig. 1. Intestinal Organoid Differentiation Process*

The color differs for each component of the differentiation kit. The dashed line represents the time of medium changes. Morphology of intestinal organoid at each stage of differentiation could be observed.

## Media Preparation

Use sterile technique when performing the following manipulations:

Medium	Component	Volume	IN-USE STORAGE/STABILITY
<b>Intestinal Medium MM (250 ml)</b>	Intestinal organoid Basal medium MM	225 ml	Mix completely the Intestinal organoid Basal medium MM and Intestinal organoid Supplement MM to get Intestinal Medium MM. Store at 2 – 8 °C for up to 2 weeks or aliquot as desired.
	Intestinal organoid Supplement MM	25 ml	

*Note: Please do not heat the complete medium (mixture of basal medium and supplement). Use it directly as cold as 2-8°C.*

## Directions for Use

Please read the entire protocol before proceeding.

Use sterile technique when performing the following protocols.

**Note: This kit only serves for the maturation and maintenance of intestinal organoids. For the differentiation of intestinal organoid, please use Human iPSC-Derived Intestinal Organoid Differentiation Kit (Cat. No. RIPO-IWM005K).**

### Intestinal Organoid Maintenance

**Case A: If you are using this kit following the differentiation kit.**

1. Make sure that all intestinal organoids are transferred into ultra-low adherent 6-well plate (can put 2-4 organoids per well depending on the size of organoid).
2. Make sure the plates are placed on an orbital shaker (as shown in the figure), which is placed inside the incubator (37 °C, 5% CO<sub>2</sub>) with the speed of 100 rpm.



3. Aspirate all medium in the wells and add 5 ml **Intestinal Medium MM** per well.
4. Change the **Intestinal Medium MM** fully every other day with the volume of 5 ml.

**Case B: If you are using this kit for purchased live intestinal organoids.**

1. Make sure that all intestinal organoids are transferred into ultra-low adherent 6-well plate (can put 2-4 organoids per well depending on the size of organoid).
2. Make sure the plates are placed on an orbital shaker (as shown in the figure), which is placed inside the incubator (37°C, 5% CO<sub>2</sub>) with the speed of 100 rpm.



3. Aspirate all medium in the wells and add 5 ml **Intestinal Medium MM** per well.
4. Change the **Intestinal Medium MM** fully every other day with the volume of 5 ml.

**Related Products**

Product	Cat. No.
Human iPSC-Derived Intestinal Organoid Differentiation Kit	RIPO-IWM005K
Ready-to-use Human iPSC-Derived Intestinal Organoids	CIPO-IWL003K