bioGenous™ Mouse Fetal Brain (Differentiation) Organoid Kit (Serum-free)

Catalog: K-2602

Product Description

bioGenous™ Mouse Fetal Brain (Differentiation) Organoid Kit is a serum-free culture medium for mouse fetal brain organoids (mFBs). In mouse fetal brain organoids expansion medium, mFBs consist of neural stem cells, characterized by the expression of markers such as Sox2. When the expansion medium is replaced with differentiation medium, mFBs can differentiate into matured neuronal cells, which exhibit specific markers including Gfap, Map2, Cux1, and Dcx. Mouse fetal brain organoids display hallmarks of the mouse fetal brain in terms of architecture, cell type composition, and self-renewal dynamics, therefore hold great promise for studies of mouse brain development and disease.

Product Information

Component	Catalog#	Volume	Storage& Stability
bioGenous™ Mouse Fetal Brain (Differentiation) Organoid Basal Medium	K-2602-A100/A500	100 mL/500 mL	2-8°C,12 months
bioGenous™ Mouse Fetal Brain (Differentiation) Organoid Supplement B (25x)	K-2602-B100/B500	4 mL/20 mL	-20°C, avoid repeated freeze-thaw cycles, 12 months
bioGenous™ Mouse Fetal Brain (Differentiation) Organoid Supplement C (100x)	K-2602-C100/C500	1 mL/5 mL	-20°C, avoid repeated freeze-thaw cycles, 12 months

Materials & Reagents Required But Not Included

The following extended materials and reagents required for organoid maintenance can be purchased from www.biogenous.cn.

Manufacturer	Materials	Catalog#
bioGenous™	Primary Tissue Storage Solution (Serum-free)	K601005
bioGenous™	Epithelial Organoid Basal Medium (Serum-free)	B213151
bioGenous™	Anti-Adherence Rinsing Solution	E238002
	DPBS (1x), liquid, contains no calcium or magnesium	-

Safety Precautions

Always follow standard laboratory safety procedures when handling biological materials. Wear appropriate personal protective equipment (PPE), including gloves, lab coat, and eye protection. Dispose of waste materials according to local regulations.
For research use only, not for use in diagnostic procedures.

Preparation Before Use

Before initiating the protocol, ensure that all components and equipment are properly prepared:

1. Verify that all components are stored according to the guidelines provided in the manual. Avoid repeated freeze-thaw cycles for sensitive reagents. Thaw all necessary reagents according to the instructions. Keep on ice or at the recommended temperature until ready to use.
2. Ensure that all equipment, such as incubators, pipettes, and centrifuges, are calibrated and functioning correctly.

Preparation of Mouse Fetal Brain Organoid Differentiation Medium

Use the sterile technique to prepare the mouse fetal brain organoid differentiation medium. The following examples are for preparing 10 mL of differentiation medium. If preparing other volumes, adjust accordingly.

Mouse Fetal Brain Organoid Differentiation Medium

A: 9.5 mL
Mouse Fetal Brain (Differentiation) Organoid Basal Medium A

Once thawed, use immediately or aliquot and store at -20°C for no more than 10 months.
After thawing the aliquots, use immediately. Do not re-freeze.

B: 400 µL
Mouse Fetal Brain (Differentiation) Organoid Supplement B (25x)

C: 100 µL
Mouse Fetal Brain (Differentiation) Organoid Supplement C (100x)

If not use immediately, store complete medium at 2-8°C for no more than 2 weeks.
bioGenous™ Mouse Fetal Brain (Differentiation) Organoid Supplement B (25x) contains fungicide and antibiotics .

Mouse Fetal Brain Organoid Differentiation Medium:

1. Thaw Mouse Fetal Brain (Differentiation) Organoid Supplement B (25x) and Mouse Fetal Brain (Differentiation) Organoid Supplement C (100x) on ice. Mix thoroughly.

2. Add 400 µL Mouse Fetal Brain (Differentiation) Organoid Supplement B (25x) and 100 µL Mouse Fetal Brain (Differentiation) Organoid Supplement C (100x) to 9.5 mL Mouse Fetal Brain (Differentiation) Organoid Basal Medium. Mix thoroughly.

Protocol for Mouse Fetal Brain Organoids Differentiation

Studies involving primary mouse tissue material must follow all relevant institutional and governmental regulations. Informed consent must be obtained from all subjects before the collection of the primary mouse tissue material.

Mouse Fetal Brain Organoids Differentiation

1. Culture the mouse fetal brain organoids in expansion medium for 2-5 days.
2. Pre-warm the mouse fetal brain organoid differentiation medium at 37°C.
3. Aspirate the mouse fetal brain organoid expansion medium, rinse the organoids with Epithelial Organoid Basal Medium (B213151).
4. Transfer 4-8 pieces to a well of 6-well plates and carefully pipette the pre-warmed differentiation medium into the wells.
5. Culture the mouse fetal brain organoids in differentiation medium for 7-10 days. During this period, replace the medium every second day.
6. At the end of this period, the differentiation process is completed.

Quality Control

All components are negative for bacterial and fungal contamination. Certificate of authenticity (COAs) for all other products are available upon request.

Safety information

Read the Safety Data Sheets (SDSs) and follow the manufacture's instruction.

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Contact and Support

For questions, suggestions, and technical supports, please contact us at E-mail: info@biogenous.cn.

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