3DCultr Gastric Cancer Organoid Growth Medium(Human)

Product description

3DCultr Gastric Cancer Organoid Growth Medium (Human) is a serum-free medium that can be used for the establishment and long-term culture of gastric cancer organoids derived from cells or tissues. In the presence of extracellular matrix, The unique components and abundant cytokines contained in the culture medium can promote the rapid growth and formation of gastric cancer organoids from gastric cancer cells. The organoid formation process is smooth and rapid, while maintaining high characteristics and vitality of gastric cancer cells, which provides a basis for subsequent support for physiological functions, disease research and precision medicine of gastric cancer organoids.

Specifications

Catalog Number	C231107E/C231107S/C231107M
Specifications	50 mL/100 mL/500 mL

Components

Component Number	Component Name	C231107E	C231107S	C231107M
C231107-A	Gastric Cancer Organoid Growth Medium	45 mL	90 mL	450 mL
C231107-B	Nutritional components（10×）	5 mL	10 mL	50 mL

Storage

Stored at -25°C~-15°C, valid for 1 year; when stored at 2~8°C, valid for 1 month.

Notes

1. The operations such as packaging and use of the product should be carried out in a sterile environment, and the experimental equipment (such as: pipette tips, product tubes, etc.) in contact with the product should be pre-cooled before use.
2. For your safety and health, please wear a lab coat and disposable gloves.
3. For research use only.

Instructions

1. Preparing human gastric cancer organoid growth medium

Complete Gastric Cancer organoid culture medium was prepared under sterile operating conditions.

The following is the procedure for preparing 100 mL of complete culture medium. If the required amount is different, the amount can be adjusted accordingly.

1) Thaw component B at room temperature or slowly thaw at 2~8°C overnight. Avoid repeated freezing and thawing, prepare and thaw immediately;

2) Remove 90 mL of component A from the refrigerator and allow it to equilibrate to room temperature.

3) Add 10 mL of component B to the component A and mix evenly; if not used temporarily, store at 2~8°C for a short period of time.

4) You can add 1% double antibody when using it.

2. Primary culture of human intestinal cancer

1) Specimen Collection: After the specimen is separated from the body, collect it as soon as possible. Use sterile instruments to ensure aseptic conditions. Place the tumor tissue in a 15 mL centrifuge tube containing 5 mL of primary tissue preservation solution and transport it at 4°C.

2) Washing: Remove the sample tube in a biosafety cabinet, discard the tissue preservation solution, and add an appropriate amount of cold PBS containing double antibodies. Wash the tissue repeatedly with PBS and discard the PBS.

3) Repeat Washing: Repeat step 2 three times.

4) Tissue Processing: After removing the PBS buffer, move the tissue block to a 10 cm sterile petri dish containing 10 mL of cold primary tissue preservation solution, and cut the tissue into pieces (about 0.5 mm~1 mm in diameter) with sterile ophthalmic microscissors..

5) Repeat Washing: Use room temperature PBS and repeat washing 3 times.

6) Collect tissue fragments, add tissue digestion solution for digestion for 20~30 minutes, pipe repeatedly and pass through a 70 μm mesh to collect Gastric Cancercells. If there are few cells, repeat once.

7) Red Blood Cell Lysis: Add 10 mL of red blood cell lysis buffer and shake on a rocker shaker at room temperature for 10 minutes.

8) Repeat Cleaning: After lysis is completed, use DMEM/F12 at room temperature and repeat step 2 three times.

9) Organoid Seeding Plate: Adjust the cell density to $2\sim3\times10^6$, mix evenly with Matrigel 1:1, seed the cell suspension in a 24-well plate at 40~60 μL per well, and place it at 37°C for 15~30 min, add preheated organoid culture medium, 750 μL to each well.

10) Organoid Culture: Place the culture plate in a 37°C CO_2 incubator. Change the culture medium every 2 days. When adding culture medium, keep the tip facing the side wall and add slowly.

11) Organoid Observation: Observe the organoids and take pictures every day to understand the initial number of organoids, proliferation rate, morphology, microbial contamination, etc.