3DCultr Breast Cancer Organoid Growth Medium(Human)

Product description

3DCultr Breast Cancer Organoid Growth Medium (Human) is a serum-free medium suitable for the establishment and long-term culture of breast cancer organoids derived from cells or tissues. Under conditions where extracellular matrix is present, this medium contains unique components and abundant cytokines that promote the rapid growth and formation of breast cancer cells into breast cancer organoids. The process of organoid formation is smooth and rapid, while maintaining high characteristics and vitality of breast cancer cells. This medium supports subsequent research in physiology, disease, and precision medicine based on breast cancer organoids.

Specifications

Catalog Number	C231109E/C231109S/C231109M
Specifications	50 mL/100 mL/500 mL

Components

Component Number	Component Name	C231109E	C231109S	C231109M
C231109-A	Intestinal Cancer Organoid Growth Medium	45 mL	90 mL	450 mL
C231109-B	Nutritional components (10×)	5 mL	10 mL	50 mL

Storage

Stored at -25℃~-15℃, valid for 1 year; when stored at 2~8℃, 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 breast cancer organoid growth medium

Complete breast 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) Take 90 mL of component A out of the refrigerator and return it 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.

2. Primary culture of human Breast Cancer

1) Material Collection: After the specimen is removed from the body, collect the material as soon as possible. Use sterile instruments to ensure a sterile environment, place the tumor tissue into a 15 mL centrifuge tube containing 5 mL of primary tissue preservation solution, and transport it at 4°C.

2) Cleaning: Take out the sample tube from the biosafety cabinet, remove the tissue preservation solution, add an appropriate amount of cold PBS with double antibodies, and remove the PBS after repeated washing.

3) Repeat Washing: Repeat step 2 three times.

4) Tissue Processing: After removing the PBS buffer, transfer the tissue block to a sterile culture dish containing 10 mL of cold primary tissue preservation solution (10 cm dish). Use sterile ophthalmic micro scissors to cut the tissue into small pieces (approximately 0.5 mm-1 mm in diameter).

5) Repeat Washing: Use room temperature PBS and repeat step 2 three 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 collectBreast Cancer cells. 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 Arcegel™ 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.