

10× Solid tumor Tissue Digestion Solution (Organoid)

CAT: IS9100

Storage: Store at -20°C, 1 year.

Introduction:

10 x solid tumor tissue digestion solution (organoid) can gently and quickly digest and dissociate biological tissue samples into cell suspensions or cell clusters, which can be used for subsequent organoid construction and cell isolation and culture. This tissue digestive fluid is widely applicable to digestion and dissociation of solid tumors (such as colon cancer, lung cancer, breast cancer, endometrial cancer, pancreatic cancer, etc.) and most normal tissue samples in primary culture in vitro.

This product is 10 times the original solution, please dilute before use.

Protocols (*only for reference*)

*Take tumor tissue as an example

1. Remove 10×solid tumor tissue digestion solution (organoid) from the refrigerator, restore to room temperature, shake up and down several times and mix. In order to minimize the influence of freezing and thawing times on the product effect, please pack 10×solid tumor tissue digestion solution (organoid) according to daily use and store it at -20°C.
2. Prepare tumor tissue digestion solution under sterile conditions. This product is a reserve solution and can be appropriately diluted with DMEM/F12 basic culture medium during use. It can be diluted 8-10 times according to tissue properties. For difficult to digest connective tissue and hard textured interstitial tissue, a final concentration of 3mM CaCl₂ solution can be added during use.
3. Digestion of tumor tissue samples
 - 1) Before digestion, the tumor tissue is cut into fragments with a volume of 1 to 3 mm³ using surgical scissors or scalpel.
 - 2) According to the size of the original tissue block, add an appropriate volume (the volume of the digestive solution should be 25-50 times of the volume of the original tumour tissue) of diluted tumour tissue digestive solution and place it in a 37°C constant-temperature incubator or constant-temperature shaker for tissue digestion. The time required for the digestion of samples from different types of tumours may vary due to the differences in tissue source, tumour subtype and individualization, with the overall digestion time ranging from 20-120 min.
 - 3) Note: Careful monitoring of the digestion process is necessary during this operation, as excessive digestion may have a significant impact on the activity of isolated cells. During the digestion process, the digestion suspension can be examined under a microscope. When a large number of individual cells or cell clusters below 70 μm are observed under the microscope, digestion can be considered complete.

- 4) Fetal bovine serum (FBS) was added to the tissue suspension with confirmed completion of digestion until the final concentration reached 2-5% or the final concentration of 0.1% BSA, and then blew and mixed evenly to terminate digestion.
- 5) The digestion suspension obtained in the previous step can be directly used for cell separation operations such as centrifugation or sieve filtration. Before using the separated cells, the sample needs to be centrifuged and cleaned twice or more with organoid basic culture medium (recommended horizontal centrifugation speed of 200-300 xg, 3-5 min).

Note

1. After dilution to the use concentration, the validity period is 1 month at -20°C, and the storage is 2-8°C. It is recommended to use within 48 h.
2. When using, please pay attention to aseptic operation to avoid contact with contamination.
3. After the product is dissolved for the first time, it can be subpackaged to avoid repeated freezing and thawing.

Related Products

IC9090 Cell recovery solution for Organoid

IC9091 Cell freezing medium for Organoid