bioGenous™ Tumor Tissue Digestion Solution

Catalog: K601003

Product Description

bioGenous™ Tumor Tissue Digestion Solution is designed for gently and rapidly digestion of tumor tissue samples into cell suspensions or cell clumps, facilitating the subsequent development of tumor organoids. This digestion solution is broadly applicable to solid tumors (such as colorectal cancer, lung cancer, breast cancer, endometrial cancer, etc.) as well as normal tissue specimens for in vitro primary culture and digestion.

Product Information

Component	Catalog#	Volume	Storage& Stability
bioGenous™ Tumor Tissue Digestion Solution (Basal Medium)	K601003-A-100 /A500	100 mL/500 mL	2-8°C, 24 months
bioGenous™ Tumor Tissue Digestion Solution (Supplement 20X)	K601003-B-100 /A500	5 mL/25 mL	-20°C, 24months

Materials & Reagents Required But Not Included

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

Manufacturer	Reagents	Catalog#
bioGenous™	Cancer Organoid Basal Medium	B213152
	Fetal Bovine Serum, FBS	

Preparation of Tumor Tissue Digestion Solution

Prepare the tumor tissue digestion solution under sterile conditions. Below is an example for preparing 10 mL of the complete tumor tissue digestion solution. Adjust quantities as needed for other volumes.

1. Thaw bioGenous™ Tumor Tissue Digestion Solution (Supplement 20X) at 4°C. Mix thoroughly.
   ***Note**: After thawing, it is recommended to aliquot bioGenous™ Tumor Tissue Digestion Solution (Supplement 20X) and store it to avoid repeated freeze-thaw cycles.*
2. Add 500 µL of bioGenous™ Tumor Tissue Digestion Solution (Supplement 20X) to 9.5 mL of bioGenous™ Tumor Tissue Digestion Solution (Basal Medium). Mix thoroughly.
   ***Note**: The prepared complete tumor tissue digestion solution can be stored at 2-8°C and is recommended for use within 24 hours, or it can be stored at -20°C for up to one month.*

Directions for Use

1. Before digestion, use surgical scissors or a scalpel to cut the tissue into fragments approximately 1-3 mm^3 in size.

2. Add an appropriate volume of Tumor Tissue Digestion Solution, equivalent to 25-50 times the volume of the original tumor tissue, based on the size of the tumor tissue block. Place the mixture in a 37°C incubator or shaking incubator for tissue digestion. The digestion time may vary depending on tumor, tissue origin, tumor subtype, and individual differences, generally ranging from 30 to 120 min.
   ***Note**: For colorectal cancer, the recommended digestion time is 5 minutes, not exceeding 10 minutes. For squamous cell carcinomas such as lung squamous cell carcinoma, esophageal squamous cell carcinoma, and head and neck squamous cell carcinoma, the recommended digestion time is 20-30 minutes. For adenocarcinomas such as lung adenocarcinoma, cardia cancer, and gastric cancer, the recommended digestion time is 10-15 minutes.*

   ***Note**: During this process, it is crucial to carefully monitor the digestion to avoid over-digestion, which can significantly reduce organoid formation efficiency. Microscopic examination of the digestion suspension can be performed during the process, and digestion should be considered complete when a substantial number of single cells or cell clusters smaller than 70 μm are observed.*

3. After confirming that the tissue digestion is complete, add 2-5% Fetal Bovine Serum (FBS), and mix thoroughly by pipetting to terminate the digestion.
4. The digestion suspension obtained from the previous step can be directly used for cell separation procedures such as centrifugation or filtration through a mesh. Before using the separated cells, wash the sample by centrifugation at least twice using Cancer Organoid Basal Medium (recommended centrifugation speed: 200-300 x *g*, 3 min).

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

For research use only, not for use in diagnostic procedures. 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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