



VitroView™ Gelatin-Based Embedding Medium

SKU#: VB-8002

Introduction: The Gelatin-Based Embedding Medium is designed for freezing and sectioning tissue samples in microscopy applications. It offers advantages such as lower viscosity and improved tissue penetration compared to traditional OCT compounds.

Advantages:

- **Improved Penetration:** The lower viscosity allows for better infiltration of tissues, enhancing sample preparation.
- **Effective Freezing:** Enables clean and precise sectioning of tissue samples without compromising sample integrity.
- **Compatibility:** Suitable for various microscopy and histology applications where traditional OCT compounds may not be optimal.
- **Sectioning:** it is easily cut the tissue than the traditional OCT compound.

Application:

- Embedding and preparing tissue sections for matrix-assisted laser desorption Ionization mass spectrometry imaging (MALDI-MSI).
- Embedding tissue samples for frozen sectioning for histological examination, immunostaining (IHC or IF), and special stains.
- Embedding 2D and 3D cultured cells for frozen sections for histological examination, immunostaining (IHC or IF), and special stains.

Package Size:

100ml/ squeeze bottle

Storage:

- Store the embedding medium at 4°C to maintain its stability and functionality.

Usage Instructions:

1. **Preparation:**
 - Thaw the embedding medium if stored at 4°C. Ensure it is at room temperature before use.
2. **Tissue Embedding:**
 - Place the tissue sample in the embedding medium in a suitable mold or container.
 - Ensure the tissue is fully submerged in the medium for optimal infiltration.
3. **Freezing:**

- Rapidly freeze the embedding medium with the tissue sample using a cryostat or other freezing apparatus suitable for histological samples.
 - Ensure the freezing process is controlled to avoid ice crystal formation that could damage the tissue structure.
4. **Sectioning:**
- Once frozen, remove the embedded tissue block from the mold and mount it securely in the cryostat. Since the viscosity of the Gelatin-Based Embedding Medium is lower, OCT compound can be used for mounting the blocks.
 - Section the tissue block using a cryostat set to the appropriate temperature for your sample type.
5. **Handling Sections:**
- Collect the tissue sections on suitable slides for further analysis or staining.
 - Handle sections carefully to avoid damage, especially considering the lower viscosity of the embedding medium.

Precautions:

- Handle the embedding medium with care to avoid contamination.
- Ensure proper labeling and documentation of samples embedded in this medium.
- Follow standard laboratory safety procedures during handling and disposal.

References:

- Lancaster, M., Knoblich, J. Generation of cerebral organoids from human pluripotent stem cells. *Nat Protoc.* 2014; 9, 2329–2340.
- Emily L. Gill, P et al. Precast Gelatin-Based Molds for Tissue Embedding Compatible with Mass Spectrometry Imaging. *Anal Chem.* 2017;89(1): 576–580.