Frozen Section Embedding Medium

F1508750

Storage: Room Temperature.

Introduction:

OCT Frozen Section Embedding Medium is a water-soluble mixture of polyethylene glycol and polyvinyl alcohol. It is now widely used in immunohistochemistry experiments. Its purpose is to support the tissue during frozen sectioning, improving tissue continuity and reducing folds and fragmentation. Since the embedding medium is water-soluble, it dissolves during the floating process, thus it does not contribute to background staining in subsequent staining procedures. This reagent is intended for research use only and is not suitable for clinical diagnosis or other purposes.

Project Number	Color
F1508750-01	Colorless
F1508750-02	Red
F1508750-03	Orange
F1508750-04	Yellow
F1508750-05	Green
F1508750-06	Cyan
F1508750-07	Blue
F1508750-08	Purple

Procedure:

Method One:

1. Remove the tissue block from the sucrose solution and place it into a 1:1 (v/v) mixture of 20 g/L sucrose and OCT embedding medium. Incubate at room temperature for 2 hours.
2. Transfer the tissue into pure OCT embedding medium and incubate at room temperature for 4 hours. Then, replace with fresh OCT embedding medium and incubate for an additional 6 hours at room temperature.
3. Place the specimen onto the specimen holder and section using a cryostat (typically at -22°C) to a thickness of 10 μm. Mount the sections onto pre-treated glass slides and store in a -20°C freezer.

Method Two:

1. Set the operating temperature of the cryostat within the range of -10°C to -25°C.
2. Apply a layer of embedding medium onto the surface of the specimen holder/disk. Gently press the tissue onto the designated area of the holder/disk. Apply additional embedding medium appropriately around the tissue. Freeze the sample to the optimal temperature for sectioning.

Notes:

1. Fragility may be caused by overly rapid freezing or excessively large specimen size.
2. Detachment of the tissue or embedding block from the holder may result from insufficient embedding medium or the tissue being positioned too close to the edge of the medium.
3. If the tissue advances but does not section smoothly, possible causes include loose fixation of the blade or tissue, incorrect blade angle, or incomplete tissue freezing.
4. Curling of sections may be due to a dirty anti-roll plate, sections being too thin, or a dull blade.
5. Tearing of sections may result from excessive freezing of the tissue, a damaged or contaminated blade edge.
6. Melting of sections may occur if the temperatures of the chamber and blade are incorrect.
7. Frost/fog on the blade may form if the cryostat lid is left open for too long.
8. Sections sticking to the anti-roll plate may be caused by incorrect temperature or a dirty anti-roll plate.
9. Sections skewing to one side may result from a dull or damaged blade edge, or a damaged anti-roll plate.
10. Sections detaching from the glass slide may occur if slide adhesives were not used, or if the sections are from fixed tissue, specimens high in fat content, or due to rough handling.
11. Horizontal cracks in sections may be caused by the specimen being too cold during sectioning.
12. For your safety and health, please wear a lab coat and disposable gloves during operation.