

3% Agar Embedding for Vibratoming Soft or Flexible Samples

Agar	3 gm
Distilled Water	100 ml

Add the agar to distilled water, with constant stirring (this helps to prevent lumps) then heat to nearly boiling, or a simmer. Continue to heat and stir for a few minutes.

Add two crystals of thymol or some sodium azide to 0.03-0.1% for preservative. Pour into small vials, such as scintillation vials, and store in the refrigerator.

To embed:

Place a vial of agar in a beaker of hot water until it is completely melted. Blot excess fluid from the issue sample and glue it onto the vibratome chuck. Use a small spatula to spoon out small quantities of agar. Pour it over the tissue or daub it around the sides of the sample. Add additional small quantities of agar as each application cools and hardens. Build the agar into a conical or pyramidal shape with a wide base for maximum stability. Very small or soft tissue samples may be "embedded" in a plastic mold for firmer support. Position the sample so that only 2-3 mm of agar-coated tissue projects above the top of the mold. Choose a mold material that can be trimmed down for sectioning more deeply into the tissue.

Each dollop of agar should be cooled to body temperature before application to prevent possible heat inactivation of antigens.

Example: sectioning rat spinal cord where multiple segments were placed in a BEEM capsule filled with agar.