

Decalcification

Decalcification is the process of removing calcium from tissues. Calcified tissue must be decalcified before processing or the tissue cannot be sectioned. Determining when a piece of tissue is properly decalcified takes an experienced technician which is why it is best to let the IHC Core staff decalcify your tissue. Different tissue types require varying lengths of time in the decalcifying solution depending on size and density of the tissue. This process requires monitoring over several hours or days. It is best to start decalcification at the beginning of the week and never the weekend in order to maintain continual observation of the tissue.

1. Remove excess tissue from around the bone if the tissue is not needed. This will allow for better penetration of decalcifying solution into the tissue.
2. Completely fix the tissue.
3. Remove tissue from fixative and rinse in tap water or PBS.
4. Place the tissue in a 10% formic acid solution until tissue is determined to be decalcified. This could take anywhere from a few hours to several days. Use a large volume of solution to tissue. You should change the solution daily if the decalcification process takes more than one day.
5. Remove tissue from formic acid and rinse in running tap water for at least ten minutes.
6. Place the tissue in 70% ethanol for storage and delivery.