



# Calfor™

## ***Suggested Procedure for 0.2 cm Bone Marrow Biopsies***

**Processing time: 1 hour**

**Calfor™, may be used to process all types of calcified histological specimens.**

Calfor® is designed to fix fresh calcified osseous tissues and simultaneously decalcify the specimen. Calfor® is best suited for small specimens of bone. Calfor® is an acid Decalcifier and rapid fixative. It is designed to be used on fresh or fixed tissues. It preserves the tissues with a minimum of lysis erythrocytes and sub cellular granules. It performs best on small tissue specimens that can be decalcified within several hours. Fresh tissue can be placed directly into Calfor; Needle biopsies may be completely fixed and decalcified in one hour or less. Small bone specimens and calcified arteries may be completely fixed and decalcified in 2-4 hours. An excellent decalcifier for large dense specimens for fixation and to begin decalcification. Calfor is a proven formulation for ISH and IHC.

This suggested procedure is meant to be used as a guideline in establishing a protocol. Larger, denser bone will take longer to decalcify than the tissue referred to here. Fixation and decalcification times will need to be increased for denser, larger bone.

### ***Consistency***

Consistent results are achieved easier by preparing uniform specimens for decalcification. For larger bone, the use of a bone saw is highly recommended. If decalcification time exceeds 24 hours, it is best to replace the decalcifying solution daily with fresh solution.

### ***Fixation Procedure***

1. Place the fresh or fixed tissue in Calfor®

2. Leave for several hours until tissue is no longer impervious to penetration by a sharp probe. 3. Following fixation and decalcification, tissues can be washed if desired for a few minutes in running tap water but is not necessary. 4. Tissues may then be placed in any holding fixative or directly on the tissue processor for tissue processing. 5. Process according to your routine processing schedules.

### ***Decalcification***

Briefly rinse fixed tissue in running water. Immerse rinsed tissue in a volume of **CalFor™**, equal to at least 20 times the volume of tissue.

### ***Agitation and Heat***

Gentle agitation will greatly enhance decalcification quality and reduce decalcification time. Gentle application of heat will also reduce decalcification times.

### ***Endpoint***

Check tissue every half hour. Probing tissue to determine flexibility is the simplest and most common method for determining endpoint. Additionally, if the tissue begins to float in solution, decalcification is usually complete; However, tissue will not necessarily float when it is decalcified. For a more accurate endpoint determination, please refer to the ammonium oxalate turbidity test.

### ***Processing***

After decalcification is complete, rinse tissue briefly in deionized water before placing tissue in the processor. This will enhance staining after processing. The use of deionized water eliminates the possible contamination of tissue by such chemicals as chlorine, sulphur, magnesium, lead and other contaminants which may be present in tap water.



**Please Note:** *If you plan to stain the section with a Potassium Ferrocyanide / HCl stain, a minimum 10-minute rinse is recommended.*

### ***Section/Surface decalcifying***

To surface decalcify embedded bone, place a small dish of **CalFor™** on ice. Place the face of the block in the dish for 5-10 minutes. Rinse the block in cold water. Icing tends to make the block harder and the water shed tends to soften the tissue face. Icing will greatly reduce the amount of chattering, especially in large blocks.

### ***Packaging***

#### **Catalog# Volume**

CFQ025	1 Gallon Cube
CFQ038	1 Gallon
CFQ438	1 Gallon CS/4
CFQ100	1000mL
CFQ400	1000mL CS/4