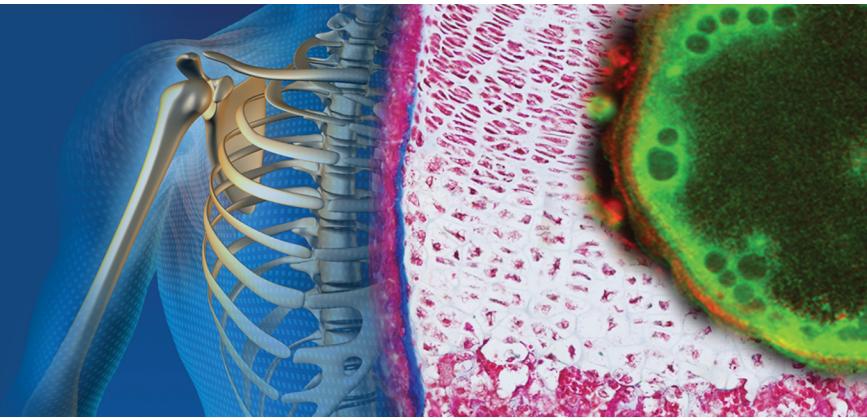


CENTER for MUSCULOSKELETAL RESEARCH



HBMI Core Decalcification Solutions

All of our samples are decalcified in one of the two 14% EDTA solutions below (as specified by the Investigator). Sample cassettes are either gently stirred in a container on a magnetic stir plate or agitated on a platform rocker with decalcification solutions changed twice weekly.

14% EDTA Decal Solution, standard solution

Deionized water-----3.40 L

HCl [36.5-38%]-----110 ml

EDTA tetrasodium salt dihydrate, (CAS#10378-23-1)----560g

Mix water and HCl well before adding the EDTA to ensure rapid dissolution of powder.

- ❖ pH should be 7.3-7.4; following adjustment of pH, bring total volume to 4 L with ddH₂O
- ❖ Samples generally decalcify for two weeks in this solution, depending on their size, with the solution changed twice weekly.

14% EDTA Decal Solution, Webb Jee^{*} solution

Deionized water-----3.40 L

Glacial Acetic Acid -----72 ml

EDTA tetrasodium salt dihydrate, (CAS#10378-23-1)----560g

Mix water and Acetic Acid well before adding the EDTA to ensure rapid dissolution of powder.

- ❖ pH should be 7.4-7.6; following adjustment of pH, bring total volume to 4 L with ddH₂O.
- ❖ Samples generally decalcify for one to two weeks in this solution, depending on their size, with the solution changed twice weekly.
- ❖ This decalcification solution produces the best results for Safranin O/Fast Green staining.

^{*}Kimmel D, Jee WSS, *Stain Technology*, 50(2):83, 1975.