



VitroView™ Formic Acid Fast Decalcification Solution

SKU#: VB-9003

Description

VitroView™ Formic Acid Fast Decalcification Solution is a ready-to-use chemical reagent for rapid, controlled decalcification of calcified tissue specimens, including bone, teeth, and calcified soft tissues. It enables efficient removal of calcium salts while preserving tissue morphology and antigenicity for downstream histological processing.

Advantage:

- Faster decalcification than chelating agents (e.g., EDTA)
- Better preservation of tissue structure and cellular detail than strong acids

Application

- Routine histology (H&E staining),
- Special stains
- Immunohistochemistry (IHC)
- Molecular applications.

Package Size

1000ml/ bottle

Storage:

Product is stable for about 12 months at room temperature.

Sample Preparation and Decalcification Procedure

1. Fix tissue thoroughly in 10% neutral buffered formalin (recommended minimum: 24–48 hours).
2. Rinse tissue briefly in running water to remove excess fixative.
3. Trim specimen to appropriate size to optimize decalcification time.
4. Add sufficient Formic Acid Fast Decalcification Solution to fully immerse the tissue.
5. Recommended ratio: 10–20 volumes of solution per volume of tissue
6. Cover container and label appropriately.
7. Incubate at room temperature (18–25 °C).
8. Gently agitate periodically to enhance decalcification.

Typical Decalcification Time:

Specimen Type	Approximate Time
Small bone biopsy	6–8 hours
Bone marrow core	6–10 hours
Large bone sections	12–48 hours
Teeth	24–72 hours

Time may vary depending on tissue density and size. Decalcification completion may be assessed by:

- Physical testing: Gently bending or probing tissue
- Chemical testing: Calcium oxalate or ammonium oxalate test
- Radiography: X-ray imaging (recommended for critical specimens)
- Avoid over-decalcification to prevent tissue damage.

Post-Decalcification Treatment

- Remove tissue from decalcifying solution.
- Wash thoroughly in running tap water for 30–60 minutes to remove residual acid.
- Proceed with routine tissue processing, embedding, and sectioning.

Quality Considerations

- Overexposure may lead to loss of nuclear staining and antigenicity.
- Validate decalcification times for IHC or molecular assays.
- Maintain consistent specimen size for reproducible results.

Disclaimer:

This user manual serves as a general guideline. Users should adapt procedures based on specific experimental requirements and equipment specifications.