

## Von Kossa Method for Calcium Kit

In tissues that contain minerals, it is important to note that exposing these tissues to a pH of 5 or less in any solution, starting with the fixative may dissolve the minerals. It is very important that all glassware is acid cleaned in order to prevent the silver nitrate solution to break down or contaminate the silver impregnation step.

**Fixation:** 10% NBF

**Microtomy:** Cut sections at six microns

### Kit Components:

- 3% Silver Nitrate
- 5% Sodium Thiosulfate
- Nuclear Fast Red

*Will stain 500 slides per kit*

### Procedure:

1. Deparaffinize and hydrate slides to distilled water
2. Place in 3% Silver Nitrate Solution and expose to strong light, sunlight, or UV light for 10-60 minutes, and check slides occasionally for the progress of the silver impregnation of the calcium. The calcium minerals absorbing the silver nitrate solution will be a dark brown to black, if used on bone the bone will turn brown to black, indicating the reaction is completed.
3. Rinse in three changes of distilled water.
4. Place in 5% sodium thiosulfate for 2 minutes.
5. Rinse in three changes of distilled water.
6. Counterstain in Nuclear Fast Red 5 minutes.
7. Dehydrate clear and mount slides.

### Results:

Mineralized bone, calcium deposits - black

Osteoid, supporting tissue and structures - red

Used as a bone stain to indicate osteomalacia, or in other paraffin embedded tissues to stain calcium deposits seen in metabolic diseases, Paget's disease, renal osteodystrophy and hyperparathyroidism, necrotic areas associated with TB, infarction (Gandy Gamna bodies), atheroma in blood vessels and Malakoplakia in the bladder (Michaelis-Gutman bodies). Demonstrates only calcium phosphate and calcium carbonate salts. Note that when used in skin specimens that the silver will reduce the melanin in the skin, to also give a black deposit.

### Ordering Information:

Cat.#	Size	Description
24633	1 kit	Von Kossa Method for Calcium Kit

#### To Order In The US:

Call: 1-800-523-2575 • (215) 343-6484  
Fax: 1-800-343-3291 • (215) 343-0214

#### To Order In Germany:

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