

**Von Kossa acc. McGee-Russel***Kit to highlight calcium on tissue sections***Manufacturer: Diapath S.p.A.****Use**

Reagents for in vitro diagnostic use.

Code	Test	Reagents	Code	Packaging
		Litium carbonate saturated aqueous solution	G009AA	1x30ml
		Ammonia Solution	G049AA	1x30ml
010241	100	Reducing solution	G072AA	1x30ml
		Sodium Thiosulfate 5%	G013AA	1x30ml
		Kernechtrot (Nuclear Fast Red)	C048AA	1x30ml

**Description**

The kit is intended for use in histological visualization of calcium.

The reaction occurs by replacing calcium ions with silver nitrate and consequent formation of silver phosphate visualized as metallic silver through reducing solution action. The reaction is not specific for calcium but it visualizes anions (phosphate, carbonate, sulfate, oxalate).

Treatment with lithium carbonate prevents staining of uric acid and its salts (false positive).

The counterstaining is obtained with Kernechtrot.

**Specimen and preparation kind**

- Preparation: Paraffin section
- Suggested fixatives: Formalin
- Control: Tissue with calcium deposits
- Storage temperature: +4°/+8°C
- Procedure time: 1 h 40 min
- Critical step: The step in reducing solution

**Staining protocol**

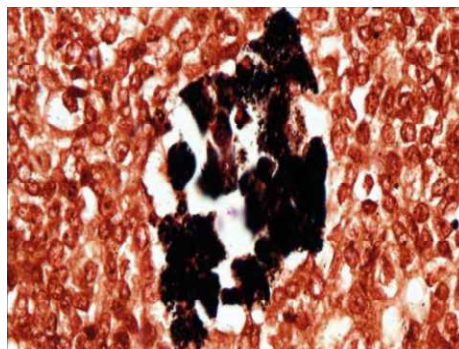
Drain reagents directly on section.

To avoid section excessive drying, use a wet incubator box.

1. Deparaffinize and hydrate to distilled water
2. **Litium Carbonate saturated aqueous solution** for 10 minutes
3. Wash in distilled water
4. **Ammonia Solution** for 60 minutes in the darkness
5. Wash in distilled water 4 times
6. **Reducing solution** for 5 minutes (continue if necessary until silver salts become black)
7. Wash in distilled water
8. **Sodium Thiosulfate 5%** for 5 minutes
9. Wash in distilled water
10. **Kernechtrot (Nuclear Fast Red)** for 5 minutes
11. Wash in running tap water for 2 minutes
12. Dehydrate quickly, clear and mount with balsam

## Results

Bone and calcium salts:           Black  
Nuclei and cytoplasm:           Pink - Red



## Quality control

The products and the raw materials are entered and constantly monitored by computer systems that allow traceability between batch number of each single product and batches of their raw materials.

## Instructions of use

To avoid mistakes, the product should be used by qualified and trained staff. Professional use product. The guidelines concerning safety on the workplace must be applied according to current regulations. The tools used for diagnosis must be suitable for diagnostic use in laboratory. The diagnosis should be performed only by authorized, trained and competent staff. Control sections should be used during each test to avoid incorrect results.

## Storage

Store the product according to the specifications listed on the label. The product, if opportunely stored and integrally packed, is stable up to the expiry date reported on the label. Do not use after expiration date.

If the reagent is not stored as recommended, its performance may change and must be validated by the user. After opening, the reagent is stable up to expiration date but only if stored in its container and in accordance with the specifications listed on the label. It is recommended to close the container tightly after the use.

## Disposal instruction

The expired and/or unused product must be disposed according to local waste regulations, based on danger classification on the label and after possible contaminations evaluation. In some cases it may be necessary an analytical evaluation to determine the correct waste classification and the danger features.

## Labeling legend



Batch n.



Manufacturer



Storage temperature limits



Product code



Expiry date



In vitro diagnostic medical device



Photosensitive

For more information see the MSDS