



## 1B-223

Cotton red B

## 1B-225

Brilliant red A

## 1B-227

Congo Red

In-vitro diagnostic agent

### Description

The product Cotton Red B is supplied in 4 different pack sizes: 1B-223.00010 (10g bottle), 1B-223.00025 (25g bottle), 1B-223.00100 (100g bottle) and 1B-223.01000 (1kg bottle). The product Brilliant Red A is supplied in 4 different pack sizes: 1B-225.00010 (10g bottle), 1B-225.00025 (25g bottle), 1B-225.00100 (100g bottle) and 1B-225.01000 (1kg bottle). The Congo Red product is supplied in 4 different pack sizes: 1B-227.00010 (10g bottle), 1B-227.00025 (25g bottle), 1B-227.00100 (100g bottle) and 1B-227.01000 (1kg bottle).

It is a dry dye for preparing a staining solution for professional users for application in histology.

### Main components

Cotton Red B (C.I. 22120)	100%
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### Purpose

The dye "Congo Red" is used for cell diagnostics for the examination of histological samples. The dye is used to prepare a solution (e.g. in ethanol). In solution, the dye enables the detection of amyloid.

Amyloid is a homogeneous and eosinophilic structure made up of protein fibrils (Ø 8 - 15 nm each), which is deposited between the cells, e.g. in amyloidosis as a result of various diseases.

### Sample material and sample preparation

Sampling may only be carried out by qualified personnel. All samples must be processed with state-of-the-art technology. All samples must be clearly labelled.

Sample material: Sections of formalin-fixed, paraffin-embedded tissue (5–6 µm thick paraffin sections).



### Test principle

The basis of Congo Red staining is the formation of hydrogen bonds and an incorporation of the dye into the amyloid fibrils.

### Staining

Preparation of the staining solution

Dissolve 0.5 g Congo Red in 100 ml 50% ethanol. Then filter the solution.

First, deparaffinise the sections and transfer them to distilled water via the descending alcohol series. Then stain in filtered Congo Red solution for 5-10 minutes. Transfer the samples to an alkaline ethanol solution (0.2 g potassium hydroxide in 100 ml 80% ethanol) for differentiation and then rinse thoroughly under tap water (5 minutes). Then transfer the samples via an ascending ethanol series into xylene and finally cover for microscopy.

Please note: Staining can be technically difficult if too thin (<5 µm) paraffin sections are used or the tissue is overstained too much.

### Result

Cell nuclei, calcium, cartilage	blue
Amyloid	pink to red (in transmitted light) green (in polarised light)
Remaining tissue	bluish

### Precautionary measures

When removing the product, care must be taken to avoid contamination of the storage vessel. Once the solution has been removed, it must not be returned to the canister. If turbidity or solids appear, discard the product. The product is intended for single use and must not be reused.

### Storage and shelf life

Store the unopened containers in a dry place at 15 to 25 °C, avoiding direct sunlight. The shelf life is 5 years. See also the best-before date (BBD) on the label. Once the containers have been opened, the shelf life corresponds to the best-before date, as long as the storage conditions are observed and the solution is handled properly.

### Safety notice

If any serious incidents occur in connection with the product, please report them to the manufacturer and the national authority.

### Literature

Romeis, Mikroskopische Technik, Editors: Maria Mulisch, Ulrich Welsch, 2010, Springer Spektrum, 18th edition