

# Product Protocol



**Product Name** Mucicarmine Stain Kit (modified Southgate 1927)

**Product Code** RRSK13-100

## Reagents

Mucicarmine (Southgate)	1x 50ml
Scots Tap Water Substitute	1x 50ml
Martius Yellow Saturated Alcoholic	1x 50ml
Haemalum Mayer	1x 50ml

## General Information

Number of Tests:	100 (based on bench top staining)
Procedure Time:	45 minutes (approximate)
Shelf Life:	3 Years (from date of manufacture)
Storage:	Mucicarmine 2-8°C. Other Reagents 15-25°C

## Principle

The mucicarmine technique is used for the demonstration of acid mucins. The active dye molecule is aluminium carminic acid complex known as carmine (Lillie 1977). The exact mechanism is not fully understood but it is believed that aluminium salts form a chelate complex with carminic acid which confers an overall positive charge on the carmine complex attracting sialomucins and sulfomucins and thus staining them whilst neutral mucins do not stain

## Specimen Collection

A standard formaldehyde based fixative provides satisfactory results. Fresh paraffin sections are preferable cut at 5 microns

## Protocol

1. Dewax sections, hydrate through alcohols and rinse in tap water
2. Stain nuclei with Mayer's haemalum for 5 minutes
3. Wash well in water
4. Differentiate in 0.5% acid alcohol and blue in Scotts tap water substitute or running tap water. Nuclei should be blue/black when checked microscopically
5. Stain with mucicarmine solution for 30 minutes (see note 1)
6. Rinse well in distilled water
7. Counterstain with martius yellow solution 30 secs
8. Rinse quickly in distilled water
9. Dehydrate, clear and mount

## Results

Carboxylated mucins, sulphomucins:	Red
Nuclei:	Blue/Black
Background Tissue:	Yellow

## Notes

1. The mucicarmine stain may be diluted 1:4 for a better contrast between staining and counterstain. Use 1ml of mucicarmine and 3ml of water
2. Staining times may be modified to provide varying intensities of staining.
3. It is recommended that a control slide be used with all sections.

## Stability

If correctly stored the reagents are usable until the expiry date

## Disposal

Hazardous reagents included, observe local waste disposal regulations

**Any serious incident that has occurred in relation to the device shall be reported to the manufacturer and the competent authority of the member state in which the user and/or the patient is established**

