

# SP965 SILVER STAIN KIT GCC

(Modifications of GOMORI, 1946; GROCOTT, 1955)

Useful in the demonstration of basement membranes (eg: Kidney) and identification of Fungal infections (eg: Nocardia, Actinomyces and all forms of Eukaryotic Fungi)

## KIT CONTENTS

Oxidant reagent	100ml	Methanamine reagent	100ml
Silver stock reagent	25ml	Bisulphite reagent	100ml
Borate buffer	50ml	Differentiator reagent	100ml
Thiosulphate reagent	100ml		

## GENERAL METHOD

- 1). Prepare thin sections 2-3 microns.
- 2). Through Xylene and Alcohols, bring sections to water.
- 3). Place slides in Oxidation Reagent for **1 Hour**.  
After 1 hour oxidation period, prepare Silver Stain Reagent (fresh prepared) as shown below

### Prepare Silver Stain Reagent as follows.

To a Coplin jar or similar add:

- 20ml Hexamine Reagent
- 5ml Silver stock reagent
- 20ml Deionised water
- 3ml Borate buffer.

**Place Coplin jar in water bath or other device to raise temperature to 55-60 Deg C.**

- 4). After 1 hour oxidation, remove slides and rinse in Tapwater for 30-40 seconds.
- 5). Rinse slides in Bisulphite solution for 20-30 seconds to remove traces of oxidant
- 6). Rinse in Tapwater for 20-30 seconds.
- 7). Rinse in **Deionised water** for 5 seconds.
- 8). Place slides in pre-heated (55-60 Deg C) freshly prepared Silver Stain Reagent for 15 minutes, at this stage check microscopically the stain profile on the slide every 3-5 minutes . 15-30 minutes staining time in the heated reagent is usually sufficient . Overstaining can be reversed with the differentiator solution.
- 9). If section background is dark then place the slides in differentiator solution for 5 –10 seconds, rinse in deionised water and check slide microscopically, if background is still too dark repeat this process until the background clears. The background should be a clear light brown/pale yellow colour.
- 10). Place slides in Thiosulphate Reagent for 1-2 minutes.
- 11). Rinse in tapwater or deionised water for 20-30 seconds.
- 12). Counterstaining is not necessary, but if one is required, the following may be used:
  - (a). Light green (Masson)
  - (b). Haematoxylin-Eosin if tissue detail is important.

- 13). Air dry and assess at low magnification or dehydrate, clear in xylene and mount in DPX or similar.

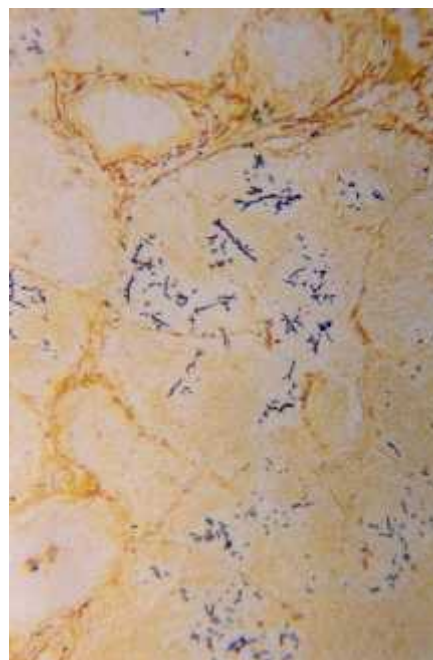
## RESULTS ( typical stain picture obtained – see below)

### PAS POSITIVE STRUCTURES.

Basement membranes, mucin, Fungi etc, -- Brown-Black

Inner parts of Hyphae -- May appear rose coloured

Background ( no counterstain) -- Light brown – pale yellow or colourless.



Result demonstrating Fungal hyphae, section x 100.

## HEALTH & SAFETY

Wear eye and skin protection when using. Do not consume these reagents. Keep stored in dark cupboard at room temperature.

Oxidant reagent contains Chromic acid and is corrosive and an oxidising agent. Irritant and may cause burns to eyes and skin.

Differentiator reagent contains dilute Sulphuric acid < 5% and is Corrosive and Irritant and may cause burns to eyes and skin.

All other reagents in this kit a low risk or harmless when used as directed however, as with all laboratory reagents some persons may be susceptible irritation and sensitivity if in contact with any chemical reagent. Therefore, if any reagent is in contact with eyes treat with eye-bath for 5 minutes.

If in contact with skin wash with soap and water. Always observe good laboratory practise when handling laboratory reagents.

R: 20, 21, 22, 36, 38 S: 20/21, 24/25, 36/37

For more complete information on Health & Safety, Storage, Fire-fighting, Transport, Spillage etc please read the MSDS for this product.



IVD

#### **ACCIDENTAL SPILLAGE & WASTE DISPOSAL**

In the volumes supplied in the kit and when in use, this product is unlikely to present a serious spillage risk. However, the following information is provided to deal with any spillage or disposal problem that may arise.

Oxidant reagent ( Chromic acid ) and Differentiator reagent ( Sulphuric acid) – mop up with cloth and wash are down with water or a solution of sodium carbonate in water to neutralise the effect of the acid. Dispose of spillage or waste reagent down the public sewer diluting greatly with water.

All other reagents dispose of to the Public Sewer diluting greatly with water.

#### **UNSATISFACTORY PERFORMANCE**

As part of our duty to monitor product performance and our policy of continual improvement. Please report to us any unsatisfactory performance you may experience with this product. If any reagent degrades before expiry date of shelf life we will replace that reagent free of charge.

GCC Diagnostics guarantees that the highest quality reagents are supplied with this product to give reliable results time and again and that this product conforms to the information contained in this leaflet.

This product is supplied for Laboratory use only, the user should however, determine the suitability of this product for their particular use. This product is supplied strictly subject to our terms of supply and sale.

This product has been tested on a fresh clinical sample before release. It has shown the expected reaction of Silver Stain on a positive fungal sample in tissue using this technique. This analytical data is available on request.

If you wish to report any findings to us or if you require any help or further information on the use of this product please contact us.

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