

**SP97**

**GCC**

## **[MGP] DNA-RNA Stain**

### **General & useage information**

For the preparation of Methyl green pyronin **[MGP]** reagent for use in the histological demonstration of DNA & RNA in tissue sections.

The laboratory should conduct trials using this reagent to determine optimal staining times and rinse/ clearing procedure.

The method given below describes how to the prepare MGP reagent and offer a general staining procededure which may need to be altered depending on the sample tissue and the stain picture desired or obtained

### **Specification**

Methyl green reagent 110ml

Pyronin Y reagent 50ml

Buffer & stabilizer reagent 2 x 250ml

This is sufficient reagent for 12 Coplin jar preparations.

**Store this product in the dark at room temperature.**

### **Additional reagents required**

Xylene to de-wax, alcohols to re-hydrate sections to water. DPX mountant.

**Controls** – use control tissue CODE: CS46 . Tonsil section.

### **Preparation of Buffered stabilised MGP reagent [ 50 ml ]**

1 - To 37 ml of stabilised buffer solution (ph 4.40-4.80) , add using a pipette, 9ml Methyl Green reagent and 4ml Pyronin reagent.

2 - Mix well and use immediately.

The prepared reagent maybe stored at room temperature in the dark and used for up to one week.

### **Preparation of rinse buffer**

Dilute 10 ml of concentrate to 100ml with deionised water. Store in refrigerator, as it is best used cold.

### **General Method**

1 - Bring sections to water

2 - Stain in MGP reagent for 15-60 minutes. After 15 minutes check quality microscopically.

3 - Wash very quickly in cold pH4.40-4.80 buffer rinse by dipping the slide 2 times into rinse.  
Check quality microscopically, return to stain if required.

4 - Blot excess water.

5 - Dehydrate in 2 changes of tert-Butanol or n-Butanol, agitating the slides, 2 minutes each.

6 - Check microscopically for red granules in the cytoplasm of plasma cells.

7 - Clear in xylene, coverslip with DPX.

### **Results**

DNA - Green to blue

RNA - Pink to red.

Sulphated carbohydrates - orange.

### **Material Saftey Data Section**

No hazardous chemicals are used in the preparation of the kit components. Therefore in normal use this product is of low risk.

Reagents are comprised of organic dyes in acetate buffered aqueous solutions. Will stain skin if in contact and may irritate eyes. Wear eye protection when using and always observe good laboratory practise when handling laboratory reagents. Wash with soap and water if in contact.

### **Waste Disposal**

Wash all spillages and waste reagent to the Public Sewer diluting greatly with water. Recycle packaging as polyethylene and cardboard.

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. The user should however, determine the suitability of this product for their particular use.

If you wish to report any findings to us or if you require any help or further information please contact us.

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