

Methyl Green-Pyronin Staining Solution

Introduction

Methyl green binds to the DNA of nuclei, causing the nuclei to be green in color, while pyronin stains the RNA of cytoplasm and nucleoli red.

Methyl Green-Pyronin Staining Solution is a combination of these two dyes, staining nuclei green, giving cytoplasm and nucleoli red color. This solution doesn't contain methanol, and is safer in use. This solution can be used in conjunction with immunofluorescence or immunohistochemical staining.

Components and Storage

Components	K1189-100 mL
Methyl Green-Pyronin Staining Buffer A	20 mL
Methyl Green-Pyronin Staining Buffer B	80 mL
Store the solution at room temperature away from light. Stable for 1 year. Buffer B can be stored at 4°C if not used for a long time.	

Protocol

1. Methyl Green-Pyronin staining working solution preparation:

Add 1 mL Buffer A into 4 mL Buffer B and mix, it is Methyl Green-Pyronin staining working solution. This solution is ready to use.

2. Sample pretreatment

1) Paraffin section

- ① Soak the sections in the xylene 2 times (5-10 min/per time) to remove the wax
- ② Absolute ethanol treatment for 5 min
- ③ 90% ethanol treatment for 2 min
- ④ 80% ethanol treatment for 2 min
- ⑤ 70% ethanol treatment for 2 min
- ⑥ Rinse with distilled water for 2 min

2) Frozen section

- ① Rinse with distilled water for 2 min

3) Culture cell

- ① 4% paraformaldehyde fixation for at least 10 min
- ② Rinse with distilled water for 2 min

3. Sample Staining

- 1) Methyl Green-Pyronin staining working solution treatment for 5 min

***Note:** The time of Methyl Green-Pyronin staining can be adjusted according to experiment needs.

- 2) Rinse with distilled water 2-3 times quickly.

4. Dehydration, clearing, sealing

- 1) Acetone treatment 3 times (1-2 s/per time)
- 2) Dip in xylene 2 times (1-2 min/per time)
- 3) Mount with neutral balsam mounting medium

5. Staining result

Nuclei	Green or blue-green
Cytoplasm and nucleoli	Red

Note

1. For the first time using this kit, it is recommended to take 1-2 samples for preliminary test.
2. For your safety and health, please wear lab coats and gloves during the experiment.
3. For research use only. Not to be used in clinical diagnostic or clinical trials.

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