



Protocol ♦ H&E Staining

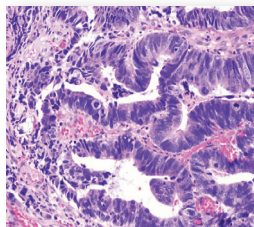
The MMI H&E Staining Kit Plus (PN 70302) is designed for users with a need to quickly stain only a few samples and need to ensure that the result is clean and clear and contamination free. The staining solutions are supplied in MMI SafeStain ampoules, allowing quick handling without the need for pipetting or the preparation of staining jars.

The MMI SafeStain ampoule guarantees a uniform drop size, and ensures the solutions remain contamination free. The staining solutions have been rigorously tested for the demanding needs of laser microdissection users. The clear staining they need is reproducibly achieved allowing a clear view of the samples together when viewed with the MMI IsolationCap. Each kit contains 15 MMI SafeStain ampoules, designed for 30-60 staining sessions. Ampoules are designed for the staining of 2-4 slides.

Improved sample Lift-Off success rate due to quicker drying. By choosing the MMI H&E Staining Kit Plus you help to reduce the amount of water hazardous stain waste and cut your laboratory running costs.

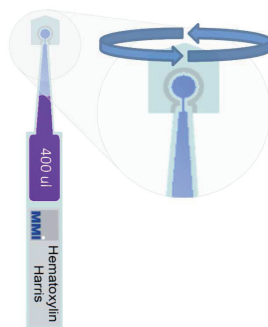
Materials:

- >98% Xylene
- >98% Propanol (recommended)
- H₂O (distilled recommended)
- MMI H&E Staining Kit Plus (PN 70302)



How to use the MMI SafeStain ampoule:

1. Hold the MMI SafeStain Ampoule upright as shown and tap the base twice on a table. This should cause the staining solution to be removed from the lid and be collected in the body of the ampoule. If solution still remains in the lid repeat the tap, until the solution has settled.
2. Now, open the MMI SafeStain Ampoule by twisting the lid off.
3. The stain can now be applied to the tissue by gently squeezing the ampoule. One drop is about 30 µl in size and covers 50-100 mm² of tissue.



Method:

This procedure is valid for all kinds of tissue sections which are 10µm or less. Thicker samples may require shorter staining times. The entire procedure will take 4 minutes.

If using fresh frozen tissue instead of FFPE, step 1 can be omitted.

1. Deparaffinize
Dunk for 45 sec in xylene
2. Remove xylene and fixate
Dunk for 45 sec in propanol
3. Hematoxylin stain:
Apply 1 drop of Hematoxylin stain per 50-100 mm² and wait 45 sec. (ca. 5 drops per slide)
4. Hematoxylin rinsing
Rinse hematoxylin residues vigorously with warm (30°C) water (distilled H₂O recommended) about 45 sec
5. Eosin stain:
Apply 2-3 drops of Eosin stain and wait 30 sec
6. Eosin rinsing:
Rinse again with cold water (distilled H₂O recommended) for 15 sec
7. Last wash
Dip 45 sec in propanol and then 45 sec in xylene

Notes:

- To ensure that the sample remains contamination free we recommend using distilled water for washing steps.
- Where possible use Propanol. It is more cost effective than ethanol and has been reported to produce better results for this procedure.
- For best results always keep the MMI SafeStain Ampoules in the box when not used. Store at room temperature and protect from light as this can cause degradation of the stain. Avoid freezing.
- Note the "best before" date printed on the box for optimal stain quality.
- Do not reuse once opened ampoules because the stain starts to oxidize. Furthermore, contamination free status could not be guaranteed anymore.
- In case of overstaining, the samples should be washed using acetalcohol to reduce the intensity.
- In case of understaining, the staining times for Hematoxylin should be increased.

Leading the way in Micromanipulation



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