

Mallory's Stain

Ryan Kerney 2008 modified from Hall Lab

Use fresh EtOH after one week. Filter all stains after 2 weeks. Make fresh dyes every 3 months (appx).

Step	Minutes	Solution
1	5	Citrisolv
2	5	Citrisolv
3	1	100% EtOH
4	1	100% EtOH
5	1	95% EtOH
6	1	80% EtOH
7	1	70% EtOH
8	1	50% EtOH
9	2**	Di-Water * *Cryosections
10	10	Mordant (CAREFUL – stabilizes stains)
11	15 sec rinse	Di-Water
12	15 sec	Acid Fuchsin
13	10 sec rinse	Di-Water
14	1	Phosphomolybdic acid
15	10 sec rinse	Di-Water
16	1.5 min	Mallory's Stain
17	10 sec rinse	Di-Water
18	10 sec	90% EtOH
20	10 sec	100% EtOH
21	10 sec	100% EtOH
22	1X4	Citrisolv
23	1	air dry 1/2 hour
24	1	Mount in DPX (Fluka) or similar

Reagents

Mordant: Saturated mercuric chloride, with 5% acetic acid. See Humason's for disposal and handling cautions.

Acid Fuchsin: 1% in aqueous solution (Fisher, CI 426850)

Phosphomolybdic Acid: 1% aqueous solution

Mallory's: 1g aniline blue (methyl blue) w.s. (Gurr); 4g orange G; 4g oxalic acid; 200mlm water → mix and do not filter, ready to use.

- Treat cryosections in 2X 5mins PBS first to remove OCT
- ** Using large di-water bath

Results:

Aniline stains collagens blue – cartilage, bone, and basement membranes appear blue-purple

Acid fuchsin stains muscles red

Orange G and acid fuchsin stain nuclei orange-red, erythrocytes are red