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Coating superfrost microscope slides with gelatin-chromium potassium sulfate

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Protocol status: Working

We use this protocol and it's working

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Abstract

This protocol describes how to coat microscope slides with gelatin-chromium potassium sulfate (gelatin-chrom alum) in preparation for histology or immunohistochemical analysis of thin tissue sections. Slides coated with gelatin-chrom alum exhibit much better retention of tissues mounted after free-floating immunohistochemical staining, especially during alcohol and xylene dehydration steps immediately prior to mounting media embedding and cover slipping.

Attachments



[it74bj7ap.docx](#)

92KB



Materials

Equipment:

- Oven
- Heated magnetic stirrer
- Thermometer
- Chemical spatulas
- Slide racks
- Heat resistant beaker compatible with slide racks

Consumables:

- Magnetic stirrer bars
- Slide storage box
- Superfrost microscope slides

Key reagents:
















-  Gelatin Merck MilliporeSigma (Sigma-Aldrich) Catalog #G2500 .
-  Chromium potassium sulfate Merck Millipore (EMD Millipore) Catalog #101036 .

Troubleshooting



Experimental Outline

2d 0h 0m 50s

- 1 Place heated magnetic stirrer in fume hood.
- 2 Pre-heat oven to  42 °C .
- 3 Heat  1 L dH2O to  50 °C -  60 °C and completely dissolve  10 g gelatin with aid of magnetic stirrer.
- 4 Add  1 g chromium potassium sulfate - solution should turn a pale green/blue and be completely clear. 
- 5 Once dissolved reduce temperature to  40 °C -  50 °C .
- 6 Place slides for coating into designated slide coating rack(s).
- 7 Dip rack of slides into warm ( 40 °C -  50 °C) gel mixture for approximately  00:00:20 -  00:00:30 . 50s
- 8 Shake the excess liquid from the rack.
- 9 Repeat steps 7 and 8.
- 10 Place slide rack(s) to dry in the oven at  42 °C for  48:00:00 . 2d
- 11 Store slides in dust-free slide storage box.



- 12 Discard Gelatin-Chrom Alum solution into appropriate waste container.