

Chrome Alum-Gelatin Adhesive - Technical Memo

SOLUTION:	250 ml	500 ml	1 Liter
Chrome Alum-Gelatin Adhesive	Part 1033A	Part 1033B	Part 1033C

Additionally Needed:

Non-Adhesive Slides:

Plain	Part 6210		
Frosted End	Part 6215	or	Part 6216
Colored End	Part 6206		

For storage requirements and expiration date refer to individual bottle labels.

APPLICATION:

Newcomer Supply Chrome Alum-Gelatin Adhesive provides a blended solution of chrome alum and high quality gelatin that promotes a strong adhesive bond between tissue sections and microscopic slides. Chrome Alum-Gelatin Adhesive can be used as an additive to water baths or as subbed slide/direct slide coating application to prevent or reduce the loss of tissue sections due to the nature of the tissue, tissue section thickness or from harsh staining treatments, leaving minimal or no background staining.

METHOD:

Technique: Frozen or paraffin sections

- a. See Procedure Note #1.

Solutions: All solutions are manufactured by Newcomer Supply, Inc.

PROCEDURES:

Water Bath Method for Paraffin Sections:

1. Fill water bath/floatation bath with distilled or deionized water with temperature set and maintained at 5°C-10°C below the melting point of embedding medium or according to laboratory protocol.
 - a. See Procedure Note #2.
2. Add 10 ml of Chrome Alum-Gelatin Adhesive for each liter of water bath/floatation bath water; combine and mix well.
3. Float sections onto non-adhesive glass slides. Drain and dry per laboratory protocol.
 - a. See Procedure Note #3.

Subbed Slide Preparation:

4. Use only clean and dry non-adhesive slides.
5. **Smear method:** Place a large drop of undiluted Chrome Alum-Adhesive solution on slide, spread evenly over surface creating a thin film.
 - a. See Procedure Notes #4 and #5.
6. **To sub multiple or racked slides;** Dip slides in sufficient amount of undiluted Chrome Alum-Gelatin Adhesive for 1-3 minutes, ensuring that slide surfaces are thoroughly coated.
 - a. Chrome Alum-Gelatin Adhesive may be difficult to remove from slide racks and glassware. Wash as soon as possible after use and/or set aside dedicated racks and glassware for subbing procedure.
 - b. See Procedure Notes #4 and #5.

Subbed Slide Method for Paraffin and Frozen Sections:

7. Paraffin Sections: float tissue sections onto thoroughly dried subbed slides. Drain and dry per laboratory protocol.
8. Frozen Sections: pick up sections on thoroughly dried subbed slides. Thaw and dry per laboratory protocol.

PROCEDURE NOTES:

1. The use of Chrome Alum-Gelatin Adhesive is not recommended when silver stains are to be performed.
2. Thoroughly clean interior/exterior of water bath/floatation bath on a daily basis to deter contaminants and residual adhesive build-up.
3. The use of adhesive slides with gelatin adhesives is not recommended.
4. Drain, blot and dry vertically in slide racks in as "dust-free" environment as possible.
 - a. Subbed slides can be dried in a 60°C oven for approximately 1 hour.
5. Store dried subbed slides indefinitely in a clean slide box at room temperature in a humidity/temperature controlled environment.
 - a. If slides are not thoroughly dried before storing they will adhere together.

REFERENCES:

1. Kiernan, J. A. *Histological and Histochemical Methods: Theory and Practice*. 3rd ed. London, Ontario: Arnold, 2003. 50-51.
2. Luna, Lee G. *Histopathologic Methods and Color Atlas of Special Stains and Tissue Artifacts*. Gaithersburg, MD: American Histolabs, 1992. 584-585.
3. Marcos, Ricardo, Eduardo Rocha and Rogerio Monteiro. "Strategies to Maximize Adhesion of Thick Paraffin Sections of the Brown Trout Liver for Stereological Purposes." *The Journal of Histotechnology* 24.1 (2001): 37-42.
4. Modifications developed by Newcomer Supply Laboratory.