

Crystal Violet Stain, Lieb, Alcoholic for Amyloid - Technical Memo

SOLUTION: 100 ml
Crystal Violet Stain, Lieb, Alcoholic Part 10421A

Additionally Needed:
Amyloid, Animal Control Slides Part 4031
Xylene, ACS Part 1445
Alcohol, Ethyl Denatured, 100% Part 10841
Alcohol, Ethyl Denatured, 95% Part 10842

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

APPLICATION:

Newcomer Supply Crystal Violet Stain, Lieb, Alcoholic is used to provide a rapid screening method for amyloid deposits in tissue sections. This procedure has low sensitivity and should only be considered as an amyloid screening technique and not an amyloid specific stain.

METHOD:

Fixation: Formalin 10%, Phosphate Buffered (Part 1090)

Technique: Paraffin sections cut at 10-12 microns

a. See Procedure Note #1.

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

STAINING PROCEDURE:

1. If necessary, heat dry tissue sections/slides in oven.
2. Deparaffinize sections thoroughly in three changes of xylene, 3 minutes each. Hydrate through two changes each of 100% and 95% ethyl alcohols, 10 dips each. Wash well with distilled water.
a. See Procedure Note #2.
3. Stain sections in Crystal Violet Stain, Lieb, Alcoholic for 10 minutes.
4. Rinse well in tap water.
5. Blot water from slides; allow slides/sections to air-dry in a vertical position.
6. Coverslip air-dried sections with compatible mounting medium.
a. See Procedure Note #3.

RESULTS:

Amyloid	Purple/violet
Background	Purple/blue

PROCEDURE NOTES:

1. For optimal results cut sections at 10-12 microns to provide better definition and more intense amyloid staining.
2. Drain slides after each step to prevent solution carry over.
3. Avoid the use of aqueous based mounting mediums which will cause bleeding/diffusion of the stain from the tissue section.
4. If using a xylene substitute, closely follow the manufacturer's recommendations for deparaffinization step.

REFERENCES:

1. Carson, Freida L., and Christa Hladik. *Histotechnology: A Self-Instructional Text*. 3rd ed. Chicago, Ill.: American Society of Clinical Pathologists, 2009. 154-155.
2. Lieb, E. "Permanent Stain for Amyloid." *American Journal of Clinical Pathology* 17 (1947). 413-414.
3. Luna, Lee G. *Manual of Histologic Staining Methods of the Armed Forces Institute of Pathology*. 3rd ed. New York: Blakiston Division, McGraw-Hill, 1968. 154.
4. Sheehan, Dezna C., and Barbara B. Hrapchak. *Theory and Practice of Histotechnology*. 2nd ed. St. Louis: Mosby, 1980. 177.
5. Modifications developed by Newcomer Supply Laboratory.