

BENNHOLD'S METHOD FOR AMYLOID (CONGO RED)

PURPOSE:	For In Vitro Diagnostic Use: Intended for the qualitative demonstration of amyloid in tissue.
PRINCIPLE:	Congo Red has a highly selective affinity for amyloid. This is due to the beta-pleated arrangement of the amyloid and the planar shape of the Congo Red molecule. The Congo Red inserts itself in-between the pleats of the amyloid and is held by hydrogen bonding. The subsequent wash with Alkaline Alcohol removes excess Congo Red from section.
CONTROL:	Tissue with a known presence of amyloid <i>Control Slides can be purchased from Histology Control Systems. See inside back cover, Item# cs001.</i>
SPECIMEN PREPARATION:	Formalin fixed, paraffin embedded sections cut at 8-10 micrometers
SOLUTIONS:	1. Congo Red 1% Aqueous Item# s167 2. Alkaline Alcohol 50% Item# s113 3. Mayer's Modified Hematoxylin Item# s216 <i>Solutions can be purchased separately from Poly Scientific.</i>
NOTES:	
REFERENCE:	Bancroft, J. D. & Stevens, A. <u>Theory and Practice of Histological Tehniques</u> . 4th Ed. Churchill Livingston. New York. 1996. pp. 311-312.

STAINING PROCEDURE:

1. Deparaffinize and hydrate to distilled water.
2. Congo Red 1% Aqueous for 1 hour.
3. Rinse off excess stain in water, 2 or 3 changes.
4. Differentiate in Alkaline Alcohol 50% for 3-5 seconds.
5. Wash in running water for 5 minutes.
6. Counterstain in Mayer's Modified Hematoxylin for 5 minutes.
7. Wash in running water for 5 minutes.
8. Dehydrate in 95% Alcohol, Absolute Alcohol and clear in Xylene, 2 changes each.
9. Mount with Poly Mount (Item# s2153) or any other acceptable mounting medium.

RESULTS:

AmyloidPink to Red (Apple-Green under polarized light)
Nuclei.....Blue

Poly Scientific R&D Corp.

Revision: B-18

