Diagnostic BioSystems

IHC Made Affordable

Amyloid Stain Kit (Congo Red)

Catalog Number: KT008

Document #: DS-3003-A
Effective Date: 02/015/15

Intended Use
For In Vitro Diagnostic Use

Summary and Explanation
The Amyloid Stain Kit (Congo Red) is intended for use in the histological visualization of amyloid in tissue sections. Examination under a polarizing microscope results in green birefringence of amyloid.

Amyloid: Red to Pink
Erythrocytes: Light Orange
Eosinophil Granules: Orange to Red
Nuclei: Blue

Control Tissue
Tissues fixed in 10% formalin are suitable for use prior to paraffin embedding. Consult references (Kiernan, 1981: Sheehan & Hrapchak, 1980) for further details on specimen preparation.

1. Cut sections 6-12 microns to show smaller amyloid deposits and pick the sections up on glass slides.
2. Bake the slides for at least 30 minutes at approximately 70°C.
3. Allow to cool.

Recommended Positive Control
1. Freshly cut sections containing amyloid.

Reagents Available

Kit Contents	Volume	Storage
Congo Red Solution	500 mL	15-30°C
Hematoxylin	500 mL	15-30°C
Bluing Reagent	500 mL	15-30°C

Storage and Handling
Do not use product after the expiration date printed on vial. If reagents are stored under conditions other than those specified here, they must be verified by the user. Diluted reagents should be used promptly.

Staining Procedure
1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Stain slide with Hematoxylin for 5 minutes.
3. Rinse slide in tap water.
4. Incubate slide in Bluing Reagent for 30 seconds.
5. Rinse slide in distilled water.
6. Dip slide in 95% alcohol for 5 seconds.
7. Stain slide with Congo Red Solution for 20 minutes.
8. Dip twice (quickly) in 100% alcohol.
9. Dip repeatedly (4-5 dips) in clearing agent, and mount in synthetic resin.

Limitations of the Procedure
1. Histological staining is a multiple step diagnostic process that requires specialized training in the selection of the appropriate reagents, tissue selections, fixation, processing, preparation of the slide, and interpretation of the staining results.
2. Tissue staining is dependent on the handling and processing of the tissue prior to staining.
3. Improper fixation, freezing, thawing, washing, drying, heating, sectioning, or contamination with other tissues or fluids may produce artifacts or false negative results.
4. The clinical interpretation of any positive staining, or its absence, must be evaluated within the context of clinical history, morphology and other histopathological criteria. It is the responsibility of a qualified pathologist to be familiar with the special stain and methods used to produce the slide.
5. Staining must be performed in a certified licensed laboratory under the supervision of a pathologist who is responsible for reviewing the stained slides and assuring the adequacy of positive and negative controls.

Precautions
1. Congo Red Solution is flammable. Keep away from open flame.
2. Consult local and/or state authorities with regard to recommended method of disposal.
3. Materials of human or animal origin should be handled as biohazardous materials and disposed of with proper precautions.
4. Avoid microbial contamination of reagents. Contamination could produce erroneous results.
5. This reagent may cause irritation. Avoid contact with eyes and mucous membranes.
6. If reagent contacts these areas, rinse with copious amounts of water.
7. Do not ingest or inhale any reagents.

Troubleshooting
If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem is suspected, contact Diagnostic BioSystems Technical Support at (925) 484-3350, extension 2 or techsupport@dbiosys.com.

References

I. Puchtler, H, et al: On the binding of Congo Red amyloid. J. Histochem. Cytochem. Vol. 10: pages 355-363, 1962.
II. Eastwood, H. & Cole, K.R., Staining of amyloid in buffered Congo Red in 50% ethanol. Stain Technology. Vol. 46: pages 208-209, 1971.
III. Carson, F.L., Histotechnology; A Self-Instructional Text, 2nd Edition. ASCP Press, Chicago, IL. Pages 117-121, 1996.
IV. Churukian, C., Improved Puchtler's Congo Red method. J. of Histotechnology. Vol. 23: pages 139-141, 2000.

Diagnostic BioSystems
6616 Owens Drive
Pleasanton, CA 94588
Tel: (925) 484 3350
www. dbiosys.com

CE

EC REP

Emergo Europe
Prinsessegracht 20
2514 AP, The Hague
The Netherlands
Tel: (31) (0) 70 345 8570