

FD Congo Red SolutionTM

(Cat. #: PS108)

FD Congo Red SolutionTM is formulated for the staining of amyloid deposits in the central nervous system. This solution may be used with frozen or paraffin-embedded sections of preferably formaldehyde-fixed tissues. The following procedure has been proven to produce excellent staining on sections from both animal and postmortem human brains. However, variations in tissues and tissue preparation may require that the duration of steps 2 & 3 (cf. below) be shortened or lengthened to obtain the best results. The staining procedure takes approximately 70 minutes and should be carried out at room temperature.

Staining Procedure:

1. Place slides in: (a) xylene, 2 changes, 3 minutes each; (b) in 100% ethanol, 2 changes, 3 minutes each; (c) in 95% ethanol for 3 minutes; (d) in 75% ethanol for 3 minutes, and then rinse (e) in distilled water, 2 changes, 3 minutes each.
2. Place slides in FD congo red solution in a plastic coplin jar and microwave for 1-5 minutes to reach temperature 70°C. Care should be taken not to boil the solution. Allow the slides to remain in the hot solution for additional 10-20 minutes depending on the desired intensity.

Note: This step may be repeated to increase the staining intensity.

3. Differentiate slides in 80% ethanol containing 0.2% NaOH by dipping slides in the solution a few times until sections become light pink.

Note: This step may be prolonged to decrease the background staining or repeated if necessary. However, excessive differentiation may also decrease or possibly eliminate specific stain.

4. Rinse in distilled water, 3 times, 2 minutes each.
5. Counterstain with hematoxylin or cresyl violet solution (optional).
6. Dehydrate in 100% ethanol, 3 changes, 3 minutes each.
7. Clear in xylene or xylene substitutes, 3 changes, 3 minutes each.
8. Coverslip in resinous mounting medium (e.g. Permount®).

Results:

Amyloid deposits are stained red.

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Warning: Xylene, ethanol and FD congo red solution are harmful or toxic if ingested or inhaled. These liquids are highly flammable. Keep away from heat, sparks, and flame. Perform the experiment under a chemical hood. Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection while doing the experiment.