FD Thionin Solution™

(Cat. #: PS101)

FD Thionin Solution™ is formulated for the staining of both neurons and glial cells. This solution can be used with frozen or paraffin-embedded tissue sections fixed with any fixative (formalin preferred). The following procedure has been proven to produce excellent results in most cases. However, variation in tissues and tissue preparation may require that the duration for steps 6, 8 and 9 (cf. below) be shortened or lengthened to obtain the best results. The staining procedure takes approximately 1 hour and should be carried out at room temperature.

Staining Procedure:

1. Place in xylene or xylene substitutes for 3 minutes.
2. Place in 100% (200 proof) ethanol, 2 changes, 3 minutes each.
3. Place in 95% ethanol for 3 minutes.
4. Place in 75% ethanol for 3 minutes.
5. Place in distilled water, 3 changes, 3 minutes each.
6. Stain in FD thionin solution for 5-10 minutes depending on the desired intensity.
   Note: the solution should be filtered before use.
7. Rinse briefly in distilled water.
8. Differentiate in 95% ethanol containing 0.1% glacial acetic acid for 2 minutes.
   Note: the staining intensity of both cellular elements and background decreases fast in this solution.
9. Dehydrate in 100% (200 proof) ethanol, 4 changes, 2 minutes each (may prolong to decrease the background staining).
10. Clear in xylene or xylene substitutes, 3 changes, 3 minutes each.
11. Coverslip in resinous mounting medium (e.g. Permount®).

Results:

Neurons and glial nuclei are stained blue.

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Warning: Xylene and ethanol are harmful or toxic to human if ingested or inhaled. The experiment should be performed under a chemical hood with appropriate protection. Avoid contact with skin and eyes. Wear glasses and disposable gloves while doing the experiment.