

FD Neutral Red Solution

(Cat. #: PS106)

FD neutral red solution is formulated for the staining of both neuronal and non-neuronal cellular elements. 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 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 neutral red solution for 5 minutes depending on the desired intensity.
Note: the solution should be filtered before use.
7. Rinse briefly in distilled water.
8. Shake off excess water and let air-dry.
9. Dehydrate in 100% (200 proof) ethanol, 3 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:

Nuclei and other basophilic structures are stained red.

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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.