

J-604, LILLIE'S METHOD FOR FERRIC AND FERROUS IRON

Fixation: **10% Buffered Neutral Formalin** (F-113)

Sections: Paraffin @ 6 microns.

Preparation of Potassium Ferrocyanide Solution:

Potassium Ferrocyanide (J-604-1) 0.4 gm.
Hydrochloric Acid (J-604-2) 40 ml.
Prepare fresh, just before use.

Preparation of Potassium Ferricyanide Solution:

Potassium Ferricyanide (J-604-1A) 0.4 gm.
Hydrochloric Acid (J-604-2) 40 ml.
Prepare fresh, just before use.

Staining: (Use control slide. Use chemically clean glassware)

1. Deparaffinize and hydrate to distilled water.
2. For Ferric Iron, place in Potassium Ferrocyanide Solution for 1 hour. For Ferrous Iron, place in Potassium Ferricyanide Solution for 1 hour.
3. Wash well in **Acetic Acid, 1%** (J-604-4).
4. Stain for 10 minutes in **Basic Fuchsin Solution** (J-604-3). Rinse in distilled water. (For critical work, omit this step.)
5. Dehydrate in 95% alcohol, absolute alcohol and clear in xylene two changes each.
6. Mount with **Permount** (M-18).

Stain Results:

Ferric iron	Dark Prussian , blue
Ferrous iron	Dark turnbull's blue
Background	Light Red

References:

Lillie, R.D. , Histopathologic Technic and Practical Histo-chemistry, 3rd edition, McGraw-Hill, N.Y., p.407., c 1965.

Luna, .G., (ed.) Manual of Histologic Staining Methods of the AFIP, 3rd edition, McGraw-Hill, N.Y., p.182., c, 1968