



# Instructions For Use

## IRN-IFU

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## Iron Stain Kit

### Description and Principle

The Iron Stain Kit is intended for use in the detection of ferric iron in tissues and bone marrow. Ferric iron is normally found in small amounts in bone marrow and the spleen. Abnormally large deposits may be seen in hemochromatosis and hemosiderosis.

This product is based on the Prussian Blue reaction in which ferric iron reacts with an acidic solution of potassium ferrocyanide to form an insoluble blue product called Prussian blue. Only ferric ions loosely bound to protein complexes will stain blue. Strongly bound ferric ions will not stain.

### Expected Results

Iron:	Bright Blue
Nuclei:	Red
Background:	Pink

### Smears

**Sideroblasts:** These are nucleated erythrocytes containing at least one small blue granule. If the blue granules surround the nucleus, the cell is a ringed sideroblast.

**Siderocytes:** These are non-nucleated erythrocytes containing at least one blue granule.

**Reticuloendothelial Iron:** Usually seen as blue particles on the marrow smear or as blue particles in the cytoplasm or phagocytic cells.

### Kit Contents

1. Potassium Ferrocyanide Solution
2. Hydrochloric Acid Solution (2%)
3. Nuclear Fast Red Solution

### Storage

- 18-25°C
- 18-25°C
- 18-25°C

### Suggested Controls (not provided)

Spleen, Bone Marrow.

### Uses/Limitations

For In-Vitro Diagnostic use only.

Do not use if reagents become cloudy or precipitate

Do not use past expiration date.

Use caution when handling reagents.

Non-Sterile

Intended for FFPE sections cut at 5-10µm.

This procedure has not been optimized for frozen sections.

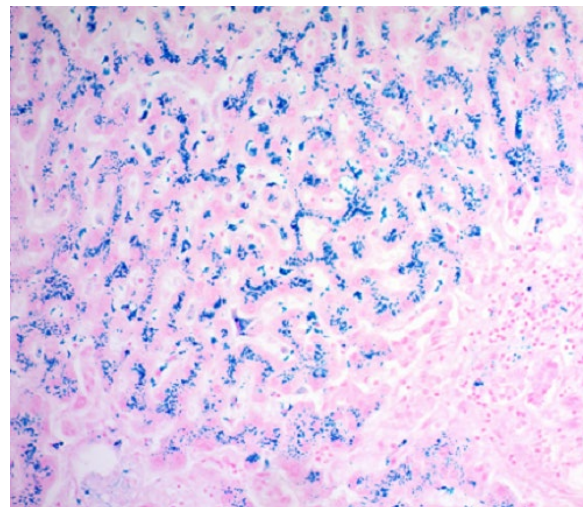
Frozen sections may require protocol modification.

### Storage

Store kit and all components at room temperature (18-25°C).

### Safety and Precautions

Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements.



Ferric iron deposits in Human Liver viewed at 20X

### Procedure

**Note:** Use acid-washed or bleach-washed glassware. Rinse all glassware with distilled water prior to use. Do not use metal forceps to transfer slide during staining procedure.

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Mix equal volumes of Potassium Ferrocyanide Solution and Hydrochloric Acid Solution to make a working Iron Stain Solution. Use once and discard.
3. Incubate slide in working Iron Stain Solution for 3-5 minutes.
4. Rinse thoroughly in distilled water.
5. Stain slide in Nuclear Fast Red Solution for 5 minutes.
6. Rinse in 4 changes of distilled water.
7. Dehydrate in 3 changes of absolute alcohol for 2 minutes each.
8. Clear, and mount in synthetic resin.

### References

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