

Version 4a Last updated 21 October 2025

# **ab150674**

## **Iron Stain**

For the histological detection of ferric iron in tissues, blood smears or bone marrow smears.

This product is for research use only and is not intended for diagnostic use.

## Table of Contents

1. Overview	1
2. Materials Supplied and Storage	2
3. Materials Required, Not Supplied	3
4. General guidelines, precautions, and troubleshooting	4
5. Assay Procedure	5
6. FAQs / Troubleshooting	6
7. Typical Data	<b>Error! Bookmark not defined.</b>
8. Notes	7

# 1. Overview

The Iron Stain is intended for use in the detection of ferric iron in tissues, blood smears, or bone marrow smears. 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 ionic iron reacts with acid ferrocyanide producing a blue color.

## Staining Interpretation:

Iron	Bright Blue
Nuclei	Red
Background	Pink

## Control Tissue:

Spleen, bone marrow

## Bone or Blood 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.

## 2. Materials Supplied and Storage

Store kit at Room temperature immediately on receipt and check below for storage for individual components. Kit can be stored for 1 year from receipt, if components have not been reconstituted.

Keep away from open flame and refer to the safety datasheet.

<b>Item</b>	<b>Quantity (30mL pack size)</b>	<b>Quantity (100 Test/ 125mL pack size)</b>	<b>Storage temperature (before prep)</b>
Potassium Ferrocyanide Solution	30 ml	500 ml	RT
Hydrochloric Acid Solution	30 ml	500 ml	RT
Nuclear Fast Red Solution	30 ml	125 ml	RT
Graduated Mixing Vial	1 each	Not supplied	RT

### **3. Materials Required, Not Supplied**

These materials are not included in the kit, but will be required to successfully perform this assay:

- 95% alcohol
- Graded alcohol

## **4. General guidelines, precautions, and troubleshooting**

Please observe safe laboratory practice and consult the safety datasheet.

For general guidelines, precautions, limitations on the use of our assay kits and general assay troubleshooting tips, particularly for first time users, please consult our guide:

[www.abcam.com/assaykitguidelines](http://www.abcam.com/assaykitguidelines)

For typical data produced using the assay, please see the assay kit datasheet on our website.

## 5. Assay Procedure

- Equilibrate all materials and prepared reagents to room temperature just prior to use and gently agitate.
- Use acid or bleach washed glassware.
- Rinse all glassware with distilled water before use.
- Do not use metal forceps to transfer slide during the staining process.

- 5.1** Deparaffinize sections if necessary and rehydrate by sequentially immersing the sections in a series of graded alcohols (e.g., 100%, 95%, 70%) before a final rinse in distilled water.
- 5.2** Mix equal volumes of Potassium Ferrocyanide Solution and Hydrochloric Acid Solution to make a working Iron Stain Solution. (Use once and discard).
- 5.3** Incubate slide in working Iron Stain Solution for 3 minutes.
- 5.4** Rinse slide thoroughly in distilled water.
- 5.5** Stain slide in Nuclear Fast Red Solution for 5 minutes.
- 5.6** Rinse in 4 changes of distilled water.
- 5.7** Dehydrate in 95% alcohol followed by absolute alcohol.
- 5.8** Clear and mount in synthetic resin.

## **6. FAQs / Troubleshooting**

General troubleshooting points are found at [www.abcam.com/assaykitguidelines](http://www.abcam.com/assaykitguidelines)

## 7. Notes





## **Technical Support**

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