ab150674

Iron Stain

Instructions for Use

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.

Version 1 Last Updated 16 April 2013
1. Introduction

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:

<table>
<thead>
<tr>
<th></th>
<th>Bright Blue</th>
<th>Red</th>
<th>Pink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclei</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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. Kit Contents

<table>
<thead>
<tr>
<th>Components</th>
<th>Amount</th>
<th>Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Ferrocyanide Solution</td>
<td>500 ml</td>
<td>RT</td>
</tr>
<tr>
<td>Hydrochloric Acid Solution</td>
<td>500 ml</td>
<td>RT</td>
</tr>
<tr>
<td>Nuclear Fast Red Solution</td>
<td>125 ml</td>
<td>RT</td>
</tr>
</tbody>
</table>

3. Storage and Handling

For storage temperatures please see the Table

Keep away from open flame. Refer to the Safety Data Sheet.

4. Additional Materials Required

95% Alcohol.

Absolute Alcohol.
5. Staining Protocol

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

1. Deparaffinize sections if necessary and hydrate in 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 minutes.
4. Rinse slide 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 95% alcohol followed by absolute alcohol.
8. Clear and mount in synthetic resin.
6. Reference Image

Figure 1 Staining of Human Kidney using ab150674 – Iron Stain

For further technical questions please do not hesitate to contact us by email (technical@abcam.com) or phone (select “contact us” on www.abcam.com for the phone number for your region).