

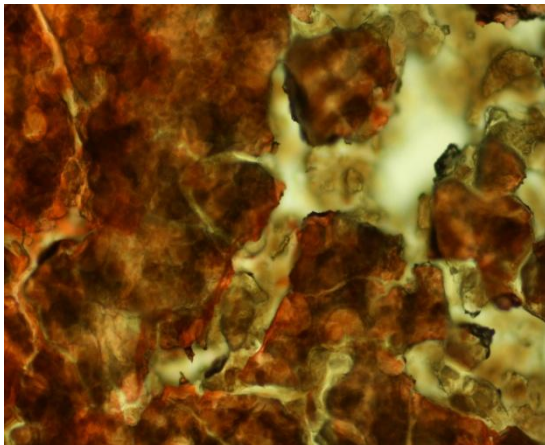
STAINING PROTOCOL OF IRON OF BONE MARROW

Small amounts of ferric iron are found normally in bone marrow. Any ferric ion (+3) present in the tissue combines with the ferrocyanide and results in the formation of a bright blue pigment called Prussian blue, or ferric ferrocyanide. This is one of the most sensitive histochemical tests and will demonstrate even single granules of iron in blood cells.

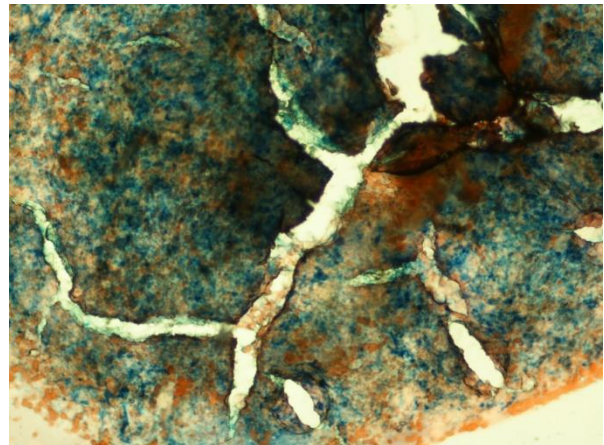
- ✚ Fix the air-dried bone marrow specimen in **methanol** for *15 min*.
- ✚ Dry the slides in room temperature.
- ✚ Mix equal parts of **hydrochloric acid** (0.2 mol/L HCl) and **potassium ferrocyanide** prepared **immediately before use**.
- ✚ Immerse slides in this solution for *15 min* in room temperature.
- ✚ Immerse in **water** for *20 min* and wash with distilled water.
- ✚ Counterstain with aqueous solution of **eosin or safranin** 1gr/L for *10-15 sec*.
- ✚ Wash with **water**. Let them dry.

Results :

1. Iron (ferric form) → bright blue
2. Nuclei → red
3. Cytoplasm → pink



Fe negative



Fe positive