

# Colloidal Iron Stain Kit

**Description** The Colloidal Iron Stain Kit is used for the histological visualization of carboxylated and sulfated mucopolysaccharides and glycoproteins. At low pH, colloidal ferric ions are absorbed principally by carboxylated and sulfated mucosubstances. The Prussian blue reaction is used to detect iron bound to the tissue; the stain is differentiated by washing out the excess reagent.

<b>Acid Mucopolysaccharides</b>	Blue
<b>Collagen</b>	Red

**Uses/Limitations** For in vitro diagnostic use only.  
Histological applications.  
Do not use past expiration date.  
Use caution when handling these reagents.

**Control Tissue** Colon  
Small Intestine

<b>Kit Contents</b>	<b>Catalog</b>	<b>Product</b>	<b>Volume</b>	<b>Storage</b>
	HAAK500	Acetic Acid Solution (12%)	60 ml (x2)	18-25°C
	EDDH030	Water, Deionized/Distilled	30 ml	18-25°C
	HHQA030	Hydrochloric Acid Solution (1N)	30 ml	18-25°C
	HPFD030	Potassium Ferrocyanide Solution (3%)	30 ml	18-25°C
	HCIS030	Colloidal Iron Stock Solution	30 ml	18-25°C
	HVGS030	Van Gieson's Solution	30 ml	18-25°C

**Precautions** Avoid contact with skin and eyes.  
May cause burns.  
Harmful if swallowed.  
Follow all Federal, State, and local regulations regarding disposal.  
Use in chemical fume hood whenever possible.

**Procedure  
(Standard)****Prepare the Following Solutions Immediately Before General Staining Procedure.****Working Colloidal Iron Solution:**

1 drop	Acetic Acid Solution (12%)
3 drops	Distilled Water
4 drops	Colloidal Iron Stock Solution

**Working Iron Stain Solution:**

5 drops	Hydrochloric Acid Solution (1N)
5 drops	Potassium Ferrocyanide Solution (3%)

**General Staining Procedure**

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Cover tissue section with Acetic Acid Solution (12%) for 30 seconds.
3. Place slide in Working Colloidal Iron Solution for 30 minutes with occasional gentle agitation. Use once and discard.
4. Rinse thoroughly in 3 changes of Acetic Acid Solution (12%) for 2 minutes each.
5. Stain slide in Working Iron Stain Solution for 10 minutes with occasional gentle agitation. Use once and discard.
6. Rinse in 3 changes of distilled water.
7. Stain tissue section with Van Gieson's Solution for 30 seconds.
8. Dehydrate in 3 changes of absolute alcohol.
9. Clear, and mount in synthetic resin.

**References**

1. Muller, G. ACTA Histochem (Jena); 2:68, 1955
2. Tickoo, S.K., et al. Colloidal iron staining in renal epithelial neoplasms, including chromophobe renal cell carcinoma: emphasis on technique and patterns of staining. American Journal of Surgical Pathology, 1998 April; 22(4): pages 419-424.