Fronine
First for Pathology
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Periodic Acid–Schiffs Stain

For In-Vitro Diagnostics

For Professional Use Only

Periodic Acid – Schiffs stain is intended for the detection of polysaccharides such as glycogen, and mucosubstances such as glycoproteins, glycolipids and mucins in tissues.

Sample Preparation

Any well-fixed tissue may be used.

Mode of Action

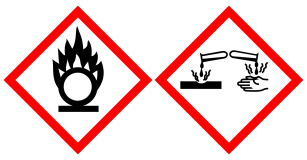
Tissue sections are oxidised by periodic acid, resulting in formation of aldehyde groupings through carbon-carbon bond cleavage. Schiff reagent bonds to the induced tissue-aldehyde in its colourless (leuco) form. Water rinsing removes the sulphurous acid, restoring the Schiff Reagent to its rose-coloured form.

Warnings and Precautions

Schiff's reagent is an irritant to both eyes and skin; it may also cause cancer. Refer to the Safety Data Sheet.

Periodic Acid

Periodic acid is an oxidiser and may intensify a fire; it is corrosive and will cause burns to skin, and eye damage. Refer to the Safety Data Sheet.



Ingredients

Schiff's Reagent

Substance	CAS	Conc
Basic Fuchsin	632-99-5	0 – 1%
Sodium Metabisulphite		0 – 1%
Hydrochloric Acid	7647-01-0	0 - <1%
Water	7732-18-5	Balance

Periodic Acid

Substance	CAS	Conc
Periodic Acid	10450-60-9	0 – 1%
Water	7732-18-5	Balance

Specifications

Schiffs Reagent

Appearance	Clear, colourless to pale yellow solution
pH @ 20°C	< 2.0
Density @ 20°C	1.000 to 1.050 g/cm^3
Performance Test	Pass

Periodic Acid

Appearance	Clear, colourless solution
pH @ 20°C	1.5 to 2.5
Density @ 20°C	1.000 to 1.010 g/cm^3

Stability

The expiry date of each reagent is printed on the label. Store each reagent away in sealed bottle away from heat and light.

This product should not be used if 1) the appearance has changed; 2) the expiration date has passed; or 3) there are other signs of deterioration.

It is strongly recommended to store Periodic Acid-Schiff's reagent tightly capped at 2-8°C to ensure longer stability. If stored incorrectly, Schiff's reagent may form a white precipitate. In most cases, a small amount of precipitate will not affect the staining performance. However, larger amounts of white precipitate can lead to a weaker Schiff's stain reaction.

Technical Procedure

1. Deparaffinise and hydrate sections to deionised water;
2. Place sections in Periodic Acid solution solution for 5 minutes at room temperature;
3. Rinse sections in several changes of deionised water;
4. Stain sections in Schiff's Reagent for 15 minutes to achieve desired contrast;
5. Rinse sections in running tap water for 10 minutes;
6. Counterstain sections in Harris Haematoxylin for 1 minute to achieve desired contrast;
7. Rinse sections in deionised water for 30 seconds; Air dry;
8. Dehydrate in two changes of alcohol, and clear with 3 or four changes of xylene.

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Riverstone NSW 2765
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9. Mount in toluene or xylene based mounting media.

Results and Interpretation

Only experienced and suitably qualified persons should carry out interpretation of stained slides.

Carbohydrates, Glycogen, Basement membranes, fungus	Magenta
Nuclei	Blue
Background	Light Purple

Notes

- Other aluminium haematoxylin's may be substituted for Harris Haematoxylin

References

Survana KS, Layton C, and Bancroft JD. Bancroft's Theory and Practice of Histological Techniques, 7th Ed. London, Churchill Livingstone, 2012

Sheehan, D.C. and Hrapchak B.B, Theory and Practice of Histotechnology, 2nd Edition; 1987, Battelle Press

Carson, Freida; Hladick, Christa; Histotechnology – A Self Instructional Text; 3rd Edition; American Society for Clinical Pathology Press 2009

Ordering

Product	Size	Code
Schiff's Reagent	100mL	FNNII028
Schiff's Reagent	500mL	FNNII029
Periodic Acid 1% Aqueous Solution	500mL	FNNFG005