



Instructions For Use

PCS-IFU

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Pneumocystis Stain Kit

Description and Principle

The Pneumocystis Stain Kit is intended for use in the histological visualization of *Pneumocystis jirovecii* in paraffin embedded tissue sections. *P. jirovecii* is an opportunistic fungal pathogen known to cause pneumonia in immunosuppressed patients.

Carbohydrates present in tissue and *Pneumocystis spp.* are made receptive to metachromatic staining by cresyl echt violet by the action of a strong acid Sulfation Reagent. Cresyl echt violet initially overstains the tissue section and is differentiated by a naphthol yellow S solution which also acts as a counterstain.

Expected Results

<i>Pneumocystis jirovecii</i> :	Violet / Purple
Connective Tissue:	Blue / Green
Erythrocytes:	Yellow / Green
Mucin:	Rose / Purple
Cartilage:	Rose / Purple

Kit Contents

1. Cresyl Echt Violet Solution (0.1%)
2. Naphthol Yellow S Solution
3. Staining Jar

Storage

- 2-8°C
18-25°C

Suggested Controls (not provided)

Any prepared slide that contains *Pneumocystis jirovecii*

Uses/Limitations

For In-Vitro Diagnostic use only.

Do not use if reagents become cloudy or precipitate

Do not use past expiration date.

Use caution when handling reagents.

Non-Sterile

Intended for FFPE sections cut at 5-10µm.

This procedure has not been optimized for frozen sections.

Frozen sections may require protocol modification.

Storage

Mixed storage conditions. Store according to individual label instructions.

Safety and Precautions

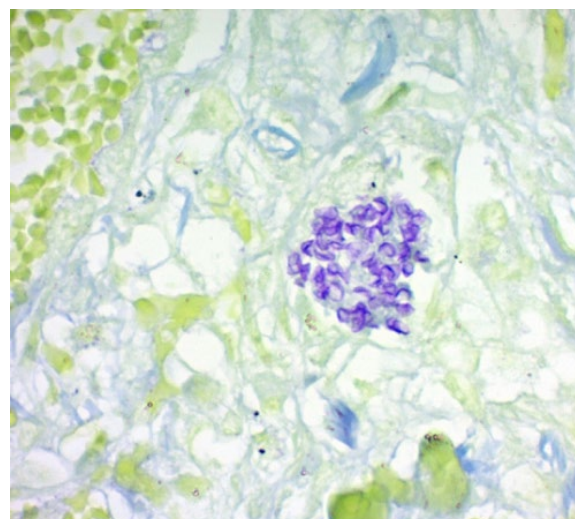
Please see current Safety Data Sheets (SDS) for this product and components GHS classification, pictograms, and full hazard/precautionary statements.

Preparation of Sulfation Reagent Prior to Beginning

(Not Included in Kit):

Note: Wear protective clothing, gloves, and eyewear when mixing and handling this reagent. Make fresh for each use.

1. Pour 15 ml of Glacial Acetic Acid into the Staining Jar provided with this kit.
2. Slowly add 5 ml of Sulfuric Acid to the Staining Jar.
3. Screw cap tightly on staining jar and invert several times to thoroughly mix acids.
4. Wait 5-10 minutes before proceeding with stain procedure to allow mixed acids to cool.
5. Use Staining Jar only for Sulfation procedure.




Pneumocystis infection in Human Lung stained with Pneumocystis Stain Kit. Viewed at 630X magnification.

Procedure:

1. Deparaffinize sections if necessary and hydrate to distilled water.
 2. Place slide in freshly mixed Sulfation Reagent for 10 minutes. Note: Agitate Staining Jar every few minutes to keep acids mixed.
 3. Rinse in 3 changes of distilled water.
 4. Incubate slide in Cresyl Echt Violet Solution (0.1%) for 10-15 minutes.
- Note:** Agitate slide several times during incubation step.
5. Rinse quickly in distilled water.
 6. Apply Naphthol Yellow S Solution to tissue section for no longer than 4 seconds. Note: Excessive Naphthol Yellow S Solution decolorizes *Pneumocystis* and connective tissue.
 7. Rinse very quickly using absolute alcohol.
 8. Dehydrate very quickly in 2 changes of fresh Absolute Alcohol. Alternative Method: Dip slide twice in Absolute Alcohol and air-dry slide.
 9. Clear, and mount in synthetic resin.

References

1. Sheenan, D.C., Hrapchak, B.B. Theory and Practice of Histotechnology, 2nd Edition. Battelle Press, Columbus, OH.

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