



# Instructions For Use

## SRS-IFU

205 South 600 West Logan, Utah 84323, U.S.A. – Tel. (800) 729-8350 – Tel. (435) 755-9848 – Fax (435) 755-0015 – www.scytek.com Rev. 2, 5/21/2024

## Picro-Sirius Red Solution

### Description and Principle

The Picro-Sirius Red Solution is intended for use in the histological visualization of muscle and collagen fibers in tissue sections. The PSR stain may be viewed using standard light microscopy or polarized light resulting in birefringence of collagen fibers.

### Expected Results

#### Light Microscopy

Collagen: Red  
Muscle Fibers: Yellow  
Cytoplasm: Yellow

#### Polarized Light Microscopy

Collagen: Yellow-Orange and Green Birefringence

### Kit Contents

#### Additional Kit Reagents Sold Separately

1. Picro-Sirius Red Solution	18-25°C
2. Acetic Acid Solution (0.5%)	18-25°C

### Storage

### Suggested Controls (not provided)

Lung, Liver, Muscle, Kidney.

### 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

Store at room temperature (18-25°C).

### Safety and Precautions

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

### Procedure

1. Deparaffinize sections if necessary and hydrate to distilled water.
2. Apply adequate Picro-Sirius Red Solution to completely cover tissue section and incubate for 60 minutes.
3. Rinse slide quickly in deionized water. Optional: If available, instead rinse with a dilute acetic acid solution (ScyTek Cat#AAD). Rinsing in this acid solution will provide quick rinsing that will slightly sharpen differentiation.
4. Rinse slide using absolute alcohol.
5. Dehydrate quickly in absolute alcohol and clear and mount in synthetic resin.



Figure 1. Collagen contrasted with skeletal muscle in human demonstrated with Picro-Sirius Red Solution

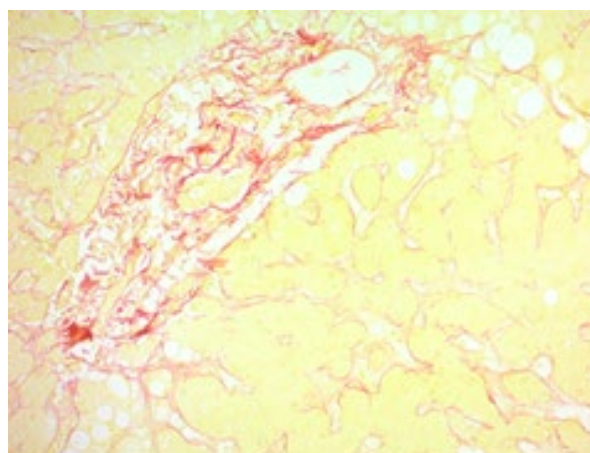




Figure 2. Collagen demonstrated in Human Liver with Picro-Sirius Red Solution

### References

1. Puchtler H., Waldrop F.S., Valentine L.S. Polarization microscopic studies of connective tissue stained with picro-sirius red FBA. *Beitr Path.* 1973; 150, pages 174-187.
2. Junqueira L.C.U., Bignolas G., Brentani R.R. Picrosirius staining plus polarization microscopy, a specific method for collagen detection in tissue sections. *Histochemistry J.* 1979, 11, pages 447-455.
3. Whittaker P. Polarized light microscopy in biomedical research. *Microscopy and Analysis* 1995; 44, pages 15-17.
4. Helmer, Rebecca A., Raul Martínez-Zaguilán, Janet S. Dertien, Candra Fulford, Oded Foreman, Vasum Peiris, and Beverly S. Chilton. "Helicase-Like Transcription Factor (Hltf) Regulates G2/M Transition, Wt1/Gata4/Hif-1a Cardiac Transcription Networks, and Collagen Biogenesis." *PLOS ONE* 8, no. 11 (November 20, 2013): e80461. <https://doi.org/10.1371/journal.pone.0080461>.
5. "Role of Heparan Sulfate 6-O Endosulfatases in Intervertebral Disc Homeostasis." *Histology and Histopathology*, 2019, 1. <https://doi.org/10.14670/HH-18-107>.

 ScyTek Laboratories, Inc.  
205 South 600 West  
Logan, UT 84321  
U.S.A.

CE 

  
Emergo Europe  
Westervoortsedijk 60  
6827 AT Arnhem, The Netherlands