

DATASHEET

Picro Sirius Red Stain Kit

Product overview

Name	Picro Sirius Red Stain Kit
Cat No	HB6179
Alternative names	PSR Stain Kit, Picrosirius Red Stain Kit
Biological description	<u>Overview</u>

The picro sirius red staining technique is frequently used to histologically stain collagen I and III fibers. This kit can be used to identify fibrillar collagen networks in tissue sections.

When viewed under linear polarized light, collagens appear as green, red, orange or yellow fibers.

Sample orientation under linear polarized light is thought to affect the hue and signal strength of the technique. Circular polarized light may be used to overcome this limitation but requires specialized equipment. Alternatively, fluorescent imaging of picro sirius red stained samples may be used which yields a strong red fluorescent signal that is sensitive and specific for collagen and is unaffected by sample orientation.

Components

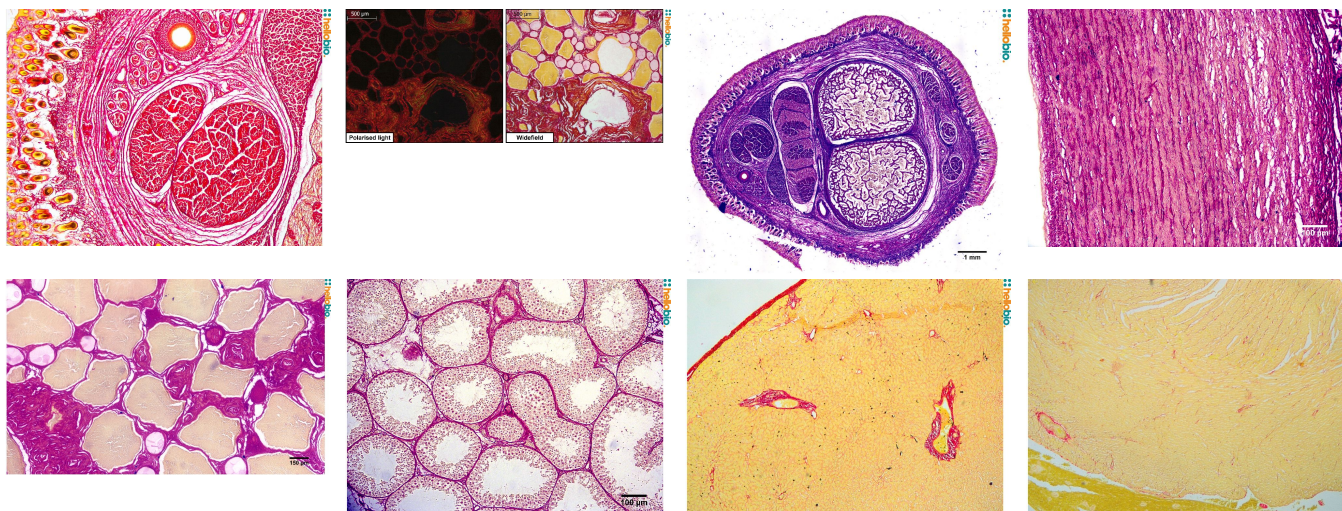
- Picrosirius Red Solution 1 x 250 mL
- Acetic Acid Solution 2 x 250 mL

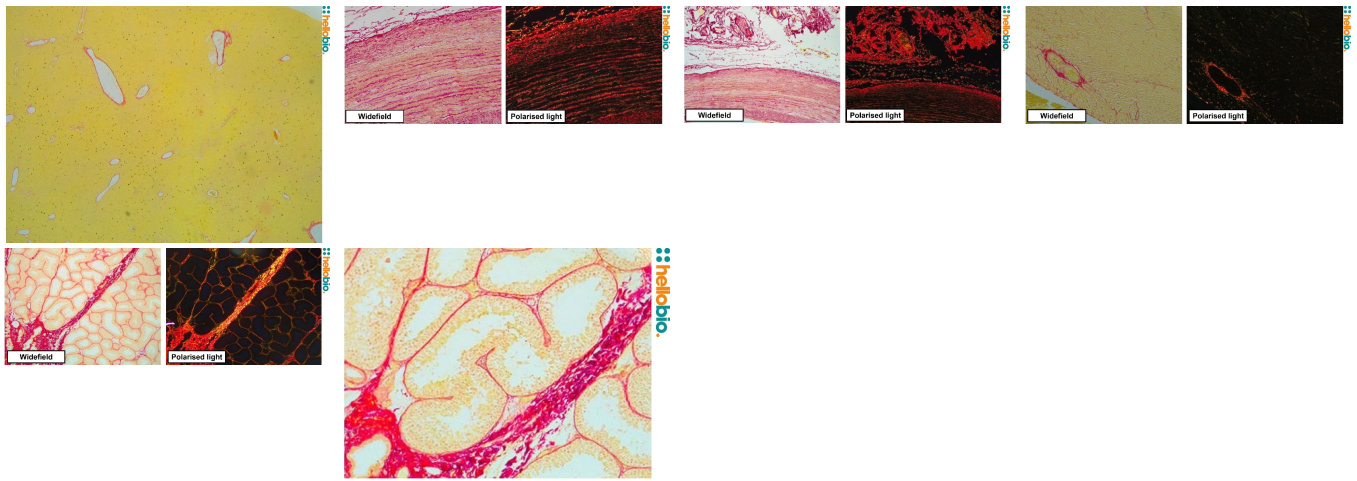
The following components are required to perform this assay but are not included in the kit:

- Absolute alcohol
- Distilled water

Biological action	<u>Please see our protocol booklet:</u> Picro Sirius Red Staining Kit Protocol
Description	Dyes & stains Kit for histological staining of Collagen I and III fibers

Images





Biological Data

Application notes

Please see our protocol booklet: [Picro Sirius Red Staining Kit Protocol](#)

Protocol summary:

- Deparaffinize/ dewax sections if required
- Hydrate in distilled water
- Immerse sections in picro Sirius red solution and stain for 60 min at room temperature
- Rinse slides quickly in 2 changes of acetic acid solution
- Rinse slide in absolute alcohol
- Deyhydrate in 2 changes of absolute alcohol
- Clear and mount slide using resinous mounting medium. A permanent and not aqueous mounting medium should be used.

Please see our protocol booklet: [Picro Sirius Red Staining Kit Protocol](#)

Interpretation of staining / results:

Polarized Light Microscopy:

- Type I (Thick fibers) Yellow-Orange Birefringence
- Type III (Thin fibers) Green Birefringence

Light Microscopy:

- Collagen – Red
- Muscle Fibers – Yellow
- Cytoplasm - Yellow

Control tissue: Lung, Muscle, Kidney or Uterus may be used as a control tissue.

Solubility & Handling

Storage instructions Important

Room temperature
This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

References

Method for Picrosirius Red-Polarization Detection of Collagen Fibers in Tissue Sections

Rittie (2017) Methods Mol Biol 1627

PubMedID

28836216

Picrosirius Red Staining: A Useful Tool to Appraise Collagen Networks in Normal and Pathological Tissues

Lattouf et al (2014) J Histochem Cytochem 62(10)

PubMedID 25023614

Picrosirius Staining Plus Polarization Microscopy, a Specific Method for Collagen Detection in Tissue Sections

Junquera et al (1979) Histochem J 11(4)

PubMedID 91593
