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DATASHEET

Picro Sirius Red Solution

Product overview

Name	Picro Sirius Red Solution
Cat No	HB9475
Alternative names	PSR Stain Solution, Picrosirius Red Solution
Biological description	**Overview**

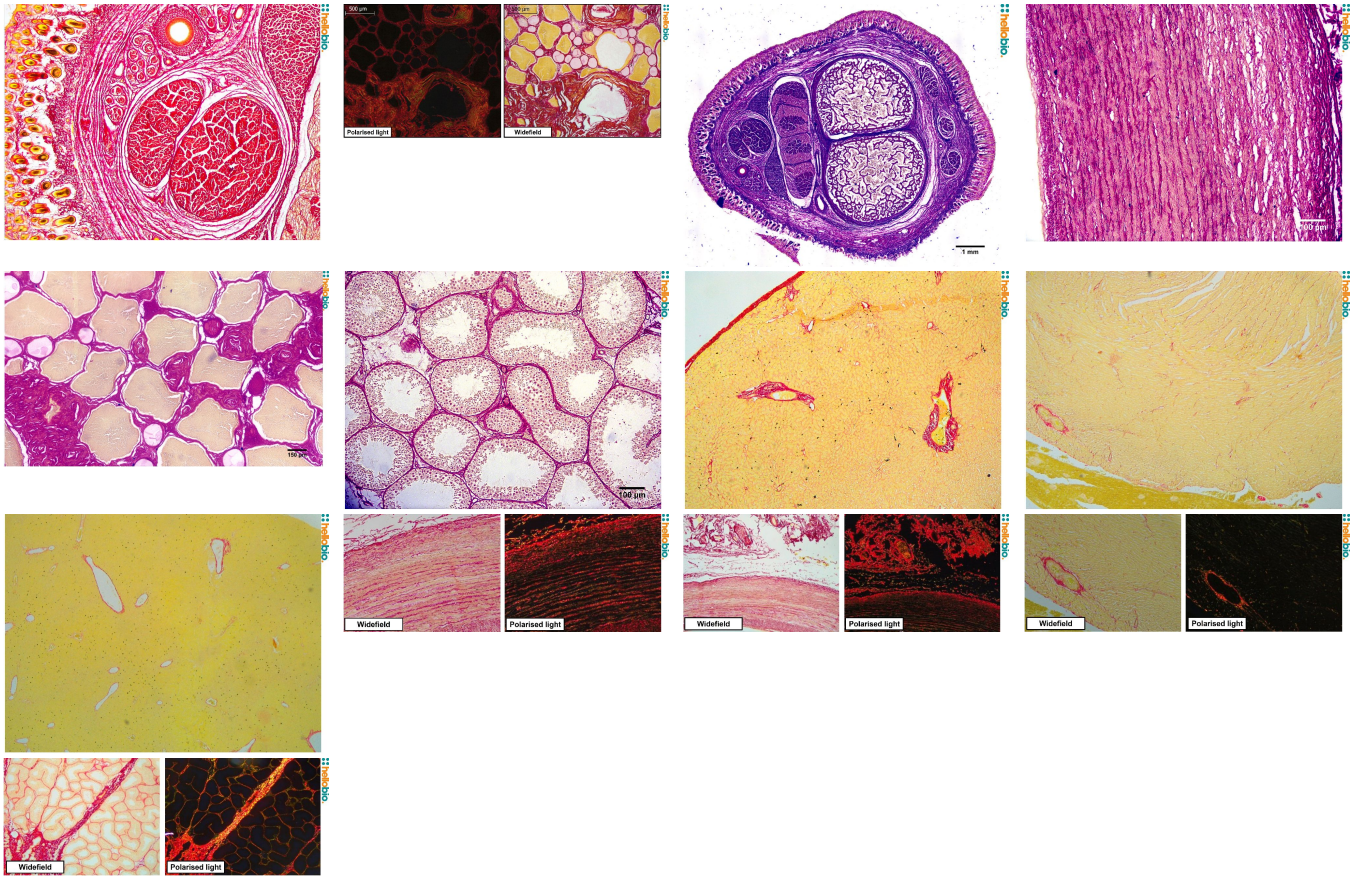
The picro sirius red staining technique is frequently used to histologically stain collagen I and III fibers. It can be used to identify fibrillar collagen networks in tissue sections.

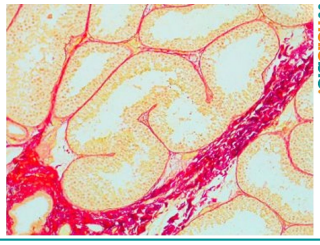
When viewed under linear polarized light, collagens appear as green, red, orange or yellow fibers.

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.

Biological action	Dyes & stains
Description	Solution for histological staining of Collagen I and III fibers

Images





Biological Data

Application notes

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.

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 Room temperature

Important 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

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

PubMedID 91593