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DATASHEET

Picro Sirius Red Solution

Product overview

Name Cat No Alternative names Biological description Picro Sirius Red Solution

HB9475

PSR Stain Solution, Picrosirius Red Solution

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.

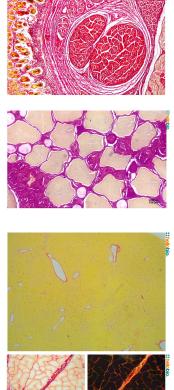
When viewed under linear polarized light, collagens appear as green, red, orange or yellow fibers.

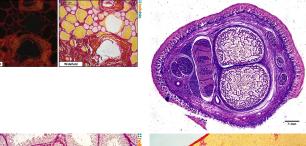
Sample orientation under linear polarized light is thought to affect the hue and signal strength of the technique. Circular polarized light may be used to overcome this limitation but requires specialized equipment. Alternatively, fluorescent imaging of picro sirius red stained samples may be used which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

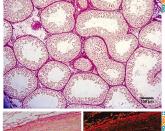
Biological action Description Dyes & stains

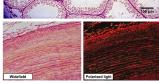
Solution for histological staining of Collagen I and III fibers

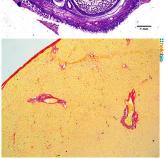
Images

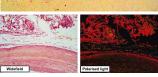


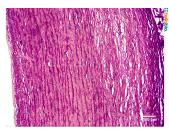


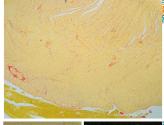


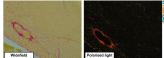




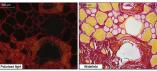




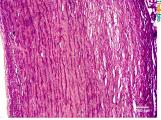


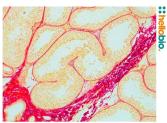












Biological Data

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 Storage of solutions

Shipping Conditions

Room temperature

Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Stable for ambient temperature shipping. Follow storage instructions on receipt.

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

References

Important

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

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