

Our **Picrosirius Red Stain** binds specifically to collagen fibrils of varying diameter to distinguish collagen Type I from Type III. Picrosirius Red Stain will quantify the amount of collagen in a given area of myocardial tissue. *(i.e. the collagen area fraction)*

- Collagenous structures of the mandible stain brilliant red
- Unlike sections stained with hematoxylin and eosin alone, dentinal tubules, Sharpey's fibers and other structures can be seen clearly after using Picrosirius Red Stain procedure
- Under polarized light, collagen fibers can be specifically identified and their orientation determined.

Picrosirius Red Stain Protocol

FIXATION

Method is most frequently used on paraffin sections of objects fixed adequately (at least 24 hours, but ideally 1 or 2 weeks) in a neutral buffered fomaldehyde solution. Fixation is not critical.

PROCEDURE

- 1. Deparaffinize and hydrate to distilled water
- 2. Stain in Weigerts Hematoxylin for 8 minutes (*if Weigerts* hematoxylin is not used, go directly to step four)
- 3. Rinse well in distilled water
- 4. Place in Solution A for 2 minutes
- 5. Distilled water rinse
- 6. Place in Solution B for 60 minutes
- 7. Place in **Solution C** for 2 minutes
- 8. 70% Ethanol for 45 seconds
- 9. Dehydrate, clear and mount

RESULTS

Stains fibrillar type I and type III collagen.

Collagen = Red Type I = Yellow Type III = Green

ORDERING INFORMATION

| Cat. # | Description | Sizes |
|--------|---------------------------|--------------|
| 24901 | Picrosirius Red Stain Kit | 250ml, 500ml |

TO ORDER

| In The U.S. Call: | 1(800) 523-2575 • (215) 343-6484 |
|-------------------|----------------------------------|
| In The U.S. Fax: | 1(800) 343-3291 • (215) 343-0214 |
| In Germany Call: | +(49) 6221-765767 |
| In Germany Fax: | +(49) 6221-764620 |

Order online anytime at www.polysciences.com

References:

- 1. Puchtler H, Waldrop FS, Valentine LS. Polarization microscopic studies of connective tissue stained with picro-sirius red FBA. Beitr Path 1973; 150, 174-187
- 2. Junqueira LCU, Bignolas G, Brentani RR. Picrosirius staining plus polarization microscopy, a specific method for collagen detection in tissue sections. Histochem J 1979; 11, 447-455
- 3. Whittaker P. Polarized light microscopy in biomedical research. Microscopy and Analysis 1995; 44, 15-17
- 4. Whittaker P, Kloner RA, Boughner DR, Pickering JG. Quantitative assessment of myocardial collagen with picrosirius red staining and circularly polarized light. Basic Research in Cardiology 1994; 89, 397-410

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