

# Picrosirius Red Stain Kit

Picrosirius red method<sup>1</sup>. Used to stain collagen I and III. The stain will quantify the amount of collagen in a given area of myocardial tissue, i.e. the collagen area fraction. Picrosirius Red Stain binds specifically to collagen fibrils of varying diameter that is used to distinguish collagen type I from collagen type III. Collagenous structures of the mandible stained brilliant red. Dentinal tubules, Sharpey's fibers and other structures not easily seen in sections stained with hematoxylin and eosin alone were seen clearly after this procedure. Under polarized light collagen fibers could be specifically identified and their orientation determined. Picrosirius red-hematoxylin is recommended for examination of normal or pathologic dental specimens.

## Contents of Kit:

- Solution A
- Solution B
- Solution C

## Fixation:

Fixation is not critical. The 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 formaldehyde solution.

## Procedure:

1. Deparaffinize and hydrate to distilled water.
2. Stain in Weigerts Hematoxylin for 8 minutes (optional) if Weigert's 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	Size
24901-250	Picrosirius Red Stain Kit	250ml
24901-500	Picrosirius Red Stain Kit	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](http://www.polysciences.com)

## References:

- Puchtler H, Waldrop FS, Valentine LS. Polarization microscopic studies of connective tissue stained with picro-sirius red FBA. *Beitr Path* 1973; 150, 174-187  
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  
Whittaker P. Polarized light microscopy in biomedical research. *Microscopy and Analysis* 1995; 44, 15-17  
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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