

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

Should any of our materials fail to perform to our specifications, we will be pleased to provide replacements or return the purchase price. We solicit your inquiries concerning all needs for life sciences work. The information given in this bulletin is to the best of our knowledge accurate, but no warranty is expressed or implied. It is the user's responsibility to determine the suitability for their own use of the products described herein, and since conditions of use are beyond our control, we disclaim all liability with respect to the use of any material supplied by us. Nothing contained herein shall be construed as a recommendation to use any product or to practice any process in violation of any law or any government regulation.