

# **Connective & Muscle Tissue Stains**

Diagnostic evaluation of tissue is primarily based on the examination of sections stained with hematoxylin and eosin (H&E). However, special stains are used to identify features that are not easily seen by routine H&E stains. For example, there are a number of genetic disorders that are important for the formation and function of muscle and connective tissue. Special stains can provide the visualization of such abnormalities in the tissue. The use of high quality, reliable and repeatable special stains are essential in allowing the pathologist to provide proper diagnosis.

Connective tissue consists of three different components: fibers, cell, and amorphous ground substances. Most commonly, special stains focus on the fibers or cells of the connective tissue, including collagen fibers, elastic fibers and reticular fibers.



## Masson's Trichrome Stain Kit Catalog #25088

Widely used to differentiate between smooth muscle and collagen fibers in tissue sections. Some common uses are to study muscular pathologies, cardiac pathologies, hepatic pathologies and kidney pathologies.

Results: Collagen fibers stain blue, nuclei stain black and cytoplasm, muscle and erythrocytes stain red.



### Gomori's Trichrome Stain Kit Catalog #24205

Gomori's One Step Trichrome used for the identification and differentiation of connective tissue, muscle and collagen fibers.

**Results:** Nuclei stain black, cytoplasm, keratin, muscle fibers stain red and collagen and mucus stain green or blue.



# **Reticulin Stain Kit**

## *Catalog #25094*

Identifies reticulin fibers in tissue sections of the liver, kidney and spleen. Reticulin is a type III collagen found in the basement membrane of many organs, where it provides structural integrity. The tissue is oxidized, sensitized and subsequently impregnated with silver. The silver is then reduced with formalin, giving a dark, insoluble precipitate.

Results: Reticular fibers stain black while nuclei stain red.



## Verhoeff Van Gieson Elastin Stain Kit

#### Catalog #25089

This stain is useful in demonstrating atrophy of elastic tissue in cases of emphysema, thinning and loss of elastic fibers in arteriosclerosis and other vascular diseases.

**Results:** Elastic fibers stain blue-black, nuclei stain blue to black, collagen stain red, and other tissue elements stain yellow.

**U.S. Corporate Headquarters** | 400 Valley Rd, Warrington, PA 18976 | 1(800) 523-2575 (215) 343-6484 | Fax 1(800) 343-3291 | info@polysciences.com **Polysciences Europe GmbH** | Badener Str. 13, 69493 Hirschberg an der Bergstr., Germany | +(49) 6201 845 20 0 | Fax +(49) 6201 845 20 20 | info@polysciences.de **Polysciences Asia Pacific, Inc.** | 2F-1, 207 DunHua N. Rd. Taipei, Taiwan 10595 | (886) 2 8712 0600 | Fax (886) 2 8712 2677 | info@polysciences.tw