

Sirius Red Staining Kit (Connective Tissue)

Cat #: A-CSH276

Size: 3×250mL

Storage: 10-30 °C, Avoid exposure to light (1 year)

Product Description

Solution A: Sirius Red Staining Solution	250ml	10-30 °C, Avoid exposure to light
Solution B: Acetic Acid Solution (0.5%)	2×250ml	10-30 °C,

Collagen fibers are the most widely distributed and abundant fibers in connective tissue, found extensively in various organs, with the highest content in the skin, sclera, and tendons.

Type I collagen fibers are mainly found in bone, skin, and tendon fibers; Type II collagen fibers are primarily found in cartilage collagen; Type III collagen fibers are mainly present in embryonic tissues, adult blood vessels, and the gastrointestinal tract; Type IV collagen fibers are primarily found in the basement membrane. Sirius Red and its counterstaining solution are both strong acid dyes that easily bind to the basic groups in collagen molecules, resulting in firm adsorption. Under polarized light microscopy, collagen fibers exhibit positive uniaxial birefringence, and when combined with Sirius Red staining solution, the birefringence is enhanced, improving resolution and allowing differentiation between the two types of collagen fibers.

Usage

1. Tissues were fixed in 10% neutral formalin solution and underwent routine dehydration and embedding.
2. Sections with a thickness of 4-6 μ m were cut and underwent routine deparaffinization to water.
3. The sections were completely immersed in Sirius Red staining solution and stained for 60 minutes.
4. The slides were quickly rinsed twice with acetic acid solution (0.5%).
5. The slides were rinsed with absolute ethanol.
6. The slides were dehydrated twice with absolute ethanol and sealed with resin.

Staining Results

Light Microscopy	Collagen Protein	Red
	Muscle Fibers, Cytoplasm	Yellow
Polarized Light Microscopy	Collagen Protein	Yellow-orange and green birefringence

Notes

For your safety and health, please wear a lab coat and disposable gloves while performing the experiment.

Disclaimer

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.