# Sirius Red Stain Kit

Catalogue No.:abx090732

Sirius Red is an acidic azo dye that reacts with alkaline groups in collagen fibers to enhance the birefringence and resolution ratio. Under a polarizing microscope, different types of collagen display different colors with bright contrast. Abbexa's Sirius Red Stain Kit contains Iron Hematoxylin and Sirius Red stains for effective staining of collagen proteins.

Kit Components (100 ml):

- Reagent A1: 25 ml
- Reagent A2: 25 ml
- Reagent B: 50 ml

Material Required But Not Provided:

- 10% formalin fixative solution
- Optical microscope or polarizing microscope

| | |
|---|---|
| **Target:** | Sirius Red Stain Kit |
| **Storage:** | Store in the dark at room temperature for up to one year. |
| **Note:** | THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION. |




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**Directions for use:**

Protocol:

1. Fix the tissue in 10% formalin fixative solution and embed by routine dehydration.
2. Cut the tissue into 3-6 μm sections. Perform routine dewaxing and rehydration.
3. Prepare Reagent A (Iron Hematoxylin Working Staining Solution) by mixing an equal volume of Reagent A1 and Reagent A2. Use the working solution within 4 hours of preparation.
4. Stain the sections with Reagent A (Iron Hematoxylin Working Staining Solution) for 5-10 minutes, then wash with distilled water for 10-20 seconds to remove excess staining solution.
5. Wash with tap water for 5-10 min.
6. Add Reagent B (Sirius Red Staining Solution) carefully using a dropper until the tissue section is immersed, and allow to stand at room temperature for 15-30 minutes. The dyeing time can be adjusted to 5-10 minutes for tissues that are easy to stain.
7. Rinse carefully with running water to remove the staining liquid on the surface of the section.
8. Starting from 75% ethanol, dehydrate using increasing concentrations of ethanol, followed by clearing using xylene. Finally, seal with neutral gum.

Staining Results:

| Microscope Type | Tissue Type | Color Observed |
|---|---|---|
| Optical Microscope | Collagen fiber | Red |
| | Nucleus | Brown to black |
| | Muscle fiber | Yellow |
| Polarizing Microscope | Type I Collagen fiber | Strong orange-yellow or light red |
| | Type III collagen fiber | Green |

Notes:

• Samples viewed under a polarizing microscope should have a section thickness of 6-7 μm.
• Nuclei that have not been stained by iron hematoxylin may appear light red after staining with Sirius Red. This does not occur if nuclei have been stained by iron hematoxylin prior to Sirius Red staining.
• Use appropriate PPE (e.g. safety glasses, lab coat, disposable gloves) throughout the assay procedure.




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