

VitroView™ Picro-Sirius Red Stain Kit

Cat. No. VB-3017

Introduction

Specific staining by Picro-sirius red is one of the most important stains to study collagen networks in different tissues. VitroView™ Picro-Sirius Red Stain Kit is designed for stain of collagen I and III fibers. The Sirius Red stain may be viewed using standard light microscopy or polarized light resulting in birefringence of the collagen fibers to distinguish between type I and type III.

Kit Components

1. Weigert's Hematoxylin Solution A -----125 ml
2. Weigert's Hematoxylin Solution B -----125 ml
3. Picro-sirius Red Solution -----250 ml
4. Acidified Water -----250 ml

Storage

Room temperature.

Protocol

- 1a. For formalin-fixed, paraffin-embedded (FFPE) tissue sections: Sides need to be deparaffinized and rehydrated.
 - a) Xylene I for 6 minutes and II for 6 minutes.
 - b) Ethanol 100% (2 minutes)
 - c) Ethanol 100% (2 minutes)
 - d) Ethanol 95% (2 minutes)
 - e) Ethanol 95% (2 minutes)
 - f) Ethanol 70% (2 minutes)
- 1b. For Frozen Sections: fix frozen sections in 10% formalin for 30 minutes.
2. Rinses in distilled water 2min × 3.
3. Prepare Weigert's working hematoxylin: mix Weigert's Hematoxylin Solution A and B at 1:1 ratio.
4. Stain nuclei with Weigert's haematoxylin for 8 minutes, and then wash the slides for 10 minutes in running tap water.
5. Stain in Picro-sirius Red Solution for one hour.
Note: This gives near-equilibrium staining, which does not increase with longer times. Shorter times should not be used, even if the colors look good.
6. Wash in two changes of acidified water.
7. Wash slides, 2min × 2 in dH₂O.
8. Dehydrate with 2 changes of 95% Ethanol and 2 changes of 100% Ethanol (2 minute per change).
9. Clear with 3 changes of xylene (5 minute per change) and coverslip with Permount or other suitable organic mounting medium.

Expected results

Light Microscopy

Collagen ----- red
Muscle Fibers ----- yellow
Cytoplasm ----- yellow

Polarized Light Microscopy

Type I (Thick fibers) ----- yellow - orange birefringence
Type III (Thin fibers) ----- green birefringence

Note

This product is intended for research purposes only. This product is **not** intended to be used for therapeutic or diagnostic purposes in humans or animals.

Precautions

Handle with care. Avoid contact with eyes, skin and clothing. Do not ingest. Wear gloves.