

## Thomas phosphomolybdic Acid Hematoxylin Staining Solution

### T1518604

**Storage** Room temperature. Protect from light.

**Shipping** Ambient temperature transportation. Please store under the specified storage conditions immediately upon receipt.

#### Introduction

Muscle fibers are components of muscle tissue and are composed of muscle cells. According to their morphological and functional characteristics, muscle fibers can be classified into smooth muscle, skeletal muscle, and cardiac muscle (note: smooth muscle is not also known as striated muscle; only skeletal and cardiac muscle are striated). There are many staining methods for muscle fibers, such as Ponceau method, Aniline Blue method, Phosphotungstic Acid Hematoxylin method, etc. At present, there are few hematoxylin solutions using phosphomolybdic acid as a mordant, and the only widely recognized technique is the Thomas Phosphomolybdic Acid Hematoxylin method adopted by McManus and Nowry for demonstrating collagen and coarse reticular fibers.

Thomas Phosphomolybdic Acid Hematoxylin Staining Solution mainly consists of Thomas Phosphomolybdic Acid Hematoxylin and Thomas Differentiation Solution. It is mainly used for the staining of collagen, coarse reticular fibers, argentaffin cell granules, etc. This reagent is for research use only and not for clinical diagnosis or other purposes.

#### Kit Contents

| T1518604  | Component                                                 | 2×100mL | Storage                |
|-----------|-----------------------------------------------------------|---------|------------------------|
| T1518604A | Thomas Phosphomolybdic Acid Hematoxylin Staining Solution | 100mL   | RT. Store in the dark. |
| T1518604B | Thomas Differentiation Solution                           | 100mL   | RT                     |

#### Materials Required (User-supplied):

Graded ethanol, distilled water, xylene or eco-friendly dewaxing clearing agent, neutral balsam.

#### Protocol (For Reference Only):

1. Perform routine tissue fixation, dehydration and embedding. Dewax with xylene or dewaxing clearing agent, then hydrate to water through graded ethanol.
2. Stain in Thomas Phosphomolybdic Acid Hematoxylin Staining Solution for 2 min, then rinse with distilled water.

3. Differentiate with Thomas Differentiation Solution, rinse quickly with distilled water, then wash in running water for 2 min.
4. Dehydrate rapidly in 95% ethanol and absolute ethanol.
5. Complete routine dehydration, clear with xylene or dewaxing clearing agent, and mount with neutral balsam.

**Staining Results:**

Collagen fibers, coarse reticular fibers: Purple to black;

Argentaffin cells: Black;

Cell nuclei: pale Blue.

**Precautions:**

1. Avoid using dichromate-based fixatives for specimen fixation.
2. For your safety and health, please wear a lab coat and disposable gloves during operation.