

Introduction

Phosphotungstic acid (PTA) is an anionic stain. PTA positively stains charged structures such as basic proteins associated with nuclear DNA and nucleoli and intensely stains mitochondrial matrix.

This procedure contains guidelines for mild staining of tissues. It can be used in cases where only a mild contrast is required, for example, immuno-gold labeled tissues or tissues stained with osmium tetroxide.

➤ The reagents required:

- **Phosphotungstic acid (for example Sigma Cat. No. P4006)**, 2% stock solution in double distilled water, pH 1.5)



WARNING

PTA solution is acidic. Appropriate personal protective clothing should be used.

- Double distilled water



NOTE

The PTA stock solution can be stored at room temperature for approximately one month.

➤ Procedure

1. Wash the sample three times, 5 minutes each wash, with double distilled water.
2. Prepare 0.01% PTA solution by diluting the 2% stock solution in double distilled water.
3. Incubate the sample with 0.01% PTA for 5 minutes.
4. Wash five times, 5 minutes each wash, with double distilled water.



NOTE

Protocols provided by QuantomiX are based on work conducted at QuantomiX laboratories. They are given as a starting point which will facilitate the user's first steps in acquiring the desired imaging results. It is the user's responsibility to determine the suitability of any protocol published by Quantomix to their applications. Users may find it necessary to modify protocols in order to obtain the information required for their study.