

VitroView™ Nissl Stain Kit

Cat. No. VB-3010

Introduction

A Nissl body, also known as Nissl or tigroid substance, is a large granular body found in neurons. This kit is designed for the detection of Nissl bodies in the cytoplasm of neurons in paraformaldehyde fixed frozen or vibratome tissue sections. This stain is commonly used for identifying basic neuronal structures in brain or spinal cord tissue. Nissl bodies will be stained purple-blue.

Kit Components

1. Cresyl Violet Solution ----- 250 ml
2. Alcohol/chloroform Solution ----250ml

Storage

Room temperature.

Protocol

1. Mount frozen or vibratome sections on adhesive slides. Air dry sections or bake slides on a slide warmer overnight.
2. Place slides **directly** into 1:1 alcohol/chloroform overnight and then rehydrate through 100% and 95 % alcohol to distilled water.
Note: DON'T put frozen sections directly in water, otherwise they will come off the slides. This is called a de-fat step that will reduce background fat staining.
3. Stain in Cresyl violet solution for 5-10 minutes.
Notes: Staining in warmed cresyl violet solution (warmed up in a 37-50 °C oven) can improve penetration and promote even staining. It is particularly beneficial for thicker (30 um) sections.
4. Rinse quickly in distilled water.
5. Differentiate in 95% alcohol for 2-30 minutes and check microscopically for best result.
6. Dehydrate in 100% alcohol 2x5 min.
7. Clear with 3 changes of xylene (5 minute per change).
8. Mount coverslip onto glass slide with Permount or some other suitable organic mounting medium.

Results

Neuron (Nissl body) ----- pink-violet

Precautions

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