Methylene Blue staining

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Abstract

A simple protocol for staining with Methylene Blue, a very commonly available stain.

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Materials

Methylene blue by Contributed by users

Protocol

Step 1.

Get methyelene blue (1% in aqueous solution); a common dye (on the WHO Model List of Essential Medicines https://en.wikipedia.org/wiki/WHO Model List of Essential Medicines).

Possible vendors: Home Science Tools

Storage: Store at room temperature (2-30 deg C)

Notes: Methylene Blue is a cationic stain (positively charged blue dye); and binds to negatively charged parts of the cells, such as nucleus (DNA) and RNA in the cytoplasm (with lower affinity). It's a common stain for a large number of tasks including identification of bacteria, cellular structure in both plan and animal cells.

Step 2.

Mounting the sample on a glass slide (either dried or fixed using methanol).

Step 3.

Flood the sample with Methylene Blue. Wait for 1-3 minutes.

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Step 4.

Wash under tap water. Blot dry with tissue paper. Add cover slip (as desired).

Step 5.

Observe under a microscope.