磷钨酸负染色液(2%)

货号：G1870
规格：100mL
保存：室温，避光保存，有效期 1 年。

产品介绍：

负染色又称阴性染色，是由 Hall 发现的相对于普通染色(即正染色)而言的染色技术。其原理在于利用重金属盐包绕低电子密度的样品，增强样本四周的电子密度，造成细微结构之间的“质量－厚度”差异，增强散射吸收反差，使样品在黑暗的背景上呈现明亮的结构。负染色液有磷钨酸、钼酸铵、印度墨汁等，其中最常用的是 1～3%磷钨酸。

磷钨酸负染色液(2%)适用于显示大分子、细菌、病毒、原生动物、噬菌体、细胞器、核酸大分子、蛋白质晶体及其他大分子材料等。染色后的样品图像呈现透明的亮光，而背景图像呈黑色。

自备材料：

离心机、载网 、显微镜

操作步骤：(*仅供参考*)

(一)滴染法

1. 样品低速离心(2000g，10min)或用其他方法浓缩样品，制成悬浮液并且使其达到一定浓度和纯度。
2. 将样品悬浮液直接滴于带有支持膜的载网上，静置3-5min。
3. 用滤纸条从液滴边缘吸去多余液体，稍干燥。
4. 滴加磷钨酸负染色液(2%)，静置2-3min。
5. 吸去多余染色液，自然干燥，进行显微镜观察。

(二)漂浮法

1. 样品低速离心(2000g，10min)或用其他方法浓缩样品，制成悬浮液并且使其达到一定浓度和纯度。
2. 将带有支持膜的载网置于样品液滴上漂浮以沾取样品。
3. 载网置于磷钨酸负染色液(2%)上漂浮 1-2min。
4. 吸去多余染色液，自然干燥，进行显微镜观察。

染色结果：

样品	透明的亮光
背景	黑色

注意事项：

1. 目的样本尽量新鲜。
2. 样品应为均匀的悬浮液，其纯度和浓度应适宜，否则无法与染色剂之间产生特异和清晰的结合反应。
3. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Phosphotungstic Acid Negative Stain Solution, 2%

Cat: G1870
Size:100mL
Storage: RT, avoid light, valid for 1 year.

Introduction

Negative Staining is a staining technique discovered by Hall compared with ordinary staining (Positive Staining). The principle is to wrap the low electron density samples around with heavy metal salt, enhance the electron density around the samples, cause the "mass-thickness" difference between the fine structures, enhance the contrast of scattering absorption, and make the samples present a bright structure in the dark background. The negative staining solution includes phosphotungstic acid, ammonium molybdate, Indian ink and so on. The most commonly used one is 1-3% phosphotungstic acid.

Phosphotungstic Acid Negative Stain Solution, 2% is suitable for displaying macromolecules, bacteria, viruses, protozoa, phages, organelles, nucleic acid macromolecules, protein crystals and other macromolecular materials. The dyed sample image shows transparent light, while the background image is black.

Self Provided Materials

Centrifuge, Loading net, Microscope

Protocol (*for reference only*)

Drop dyeing method

1. Centrifuge the sample at low speed (2000g, 10min) or concentrate by other methods to make suspension and make it reach a certain concentration and purity.
2. Drop the sample suspension directly on the gird with supporting membrane and leave it for 3-5mins.
3. Use a filter paper strip to absorb the excess solution from the edge of the droplet and dry it slightly.
4. Drop Phosphotungstic Acid Negative Stain Solution, 2% and leave it for 2-3mins.
5. Remove the excess solution, dry it naturally and view it under the microscope.

Floating method

1. Centrifuge the sample at low speed (2000g, 10min) or concentrate by other methods to make suspension and make it reach a certain concentration and purity.
2. Place the loading net with supporting membrane on the sample droplet to float to dip the sample.
3. Place the loading net on the Phosphotungstic Acid Negative Stain Solution, 2% and float for 1-2mins. Remove the excess solution, dry it naturally and view it under the microscope.

Result

Sample	Transparent Light
Background	Black

Note

1. The samples to be tested should be as fresh as possible.
2. The sample shall be a uniform suspension with appropriate purity and concentration, otherwise it will not produce a specific and clear binding reaction with the dye.
3. For your safety and health, please wear experimental clothes and disposable gloves.