结晶紫染色液(2.5%，革兰氏)

货号： G1061
规格： 10mL/100mL/500mL
保存： 2-8℃, 有效期1年。

产品介绍：

结晶紫染色液是革兰氏染色法中的一种成分。革兰阳性菌染色中，细胞经草酸铵结晶紫染色后再经Gram碘液处理，形成不溶性复合物，该复合物不能通过细胞壁，不易被脱色，所以保持紫色。染色后细菌与环境形成鲜明对比，可以清楚地观察到细菌的形态、排列及某些结构特征，而用以分类鉴定。

操作步骤： (*仅供参考*)

按实验具体要求操作或参考下列革兰氏染色的方法:

1. 涂片：取待检细菌，于载玻片中央涂成薄层或者在载玻片上滴加少许无菌水，取菌与水混合均匀，涂成薄层。
2. 干燥：涂片后在室温下自然干燥，也可在酒精灯上略加温，使之迅速干燥。
3. 固定：手持载玻片一端，标本面朝上，在酒精灯的火焰外侧快速来回移动。
4. 初染：滴加结晶紫染色液(2.5%，革兰氏)染色1min，清水冲洗去染色液。
5. 媒染：滴加Gram碘液，并覆盖载玻片室温放置1min，水洗。
6. 脱色：滴加脱色液摇动，直至流下的脱色液不出现紫色为止，立即用水冲去脱色液，终止反应。
7. 复染：滴加沙黄染色液染色1min，水洗。
8. 干燥。镜检：置油镜观察。

染色结果：

革兰氏阴性菌	红色
革兰氏阳性菌	紫色

注意事项：

1. 涂片之前，应事先在背面做好圆圈标记，以便判断后续试验的位置。
2. 待检细菌培养时间会影响染色，阳性菌培养时间过长或已死亡或细菌溶解，常呈阴性。
3. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Crystal Violet Ammonium Oxalate Solution, 2.5% For Gram Stain

Cat: G1061
Size:10mL/100mL/500mL
Storage:2-8℃, valid for 1 year.

Introduction

Crystal Violet Stain Solution, 2.5% is mainly composed of ammonium oxalate, crystal violet, ethanol etc. The solution is a component of Gram stain. The primary stain is crystal violet, a basic dye taken up by all bacteria due to its ability to rapidly permeate the cell wall. It stains the protoplast of bacteria purple. The potassium-iodine mixture is the mordant which complexes with the primary stain in the cell. In gram-positive cells, the crystal violet-iodine complex is trapped in the cell due to a decrease in cell wall permeability caused by alcohol dehydration. Gram-positive cells are stained purple. In gram-negative cells, the complex is removed by the decolorizer due to an increase in permeability caused by solubility of the lipids in alcohol. The counterstain used must be a contrasting color to the primary stain and, in this case, it is safranin which stains gram-negative cells red.

Protocol(*for reference only*)

1. Prepare a thin smear on clear and dry glass slide.
2. Air dry and fix it over a gentle flame, while moving the slide in a circular fashion to avoid localized overheating.
3. Flood with Gram's Crystal Violet Solution, 2.5% for 1 min. Wash with tap water.
4. Flood the smear with Gram's Iodine Solution for 1 min.
5. Pour off the Gram's Iodine Solution and gently wash with tap water. Shake off the excess water from the surface.
6. Decolorize with Gram's Decolorizing Solution for 20 to 60 s until the blue dye no longer flows from the smear. Further delay will cause excess decolorization in the gram-positive cells, and the purpose of staining will be defeated.
7. Wash with tap water.
8. Counterstain with Gram's Safranin Solution for 1 min. Wash with tap water.
9. Allow the slide to air dry or blot dry between sheets of clean bibulous paper and view under oil immersion lens.

Result

Gram-Positive Organisms	Bluish Purple
Gram-Negative Organisms	Pinkish Red

Note

1. Before smearing, circle marks should be made on the back in order to judge the position of subsequent tests.
2. The culture time of the bacteria to be tested will affect the staining, and the positive bacteria are often negative when the culture time is too long or they have died or the bacteria are dissolved.
3. For your safety and health, please wear laboratory clothes and disposable gloves.