V02

吕氏碱性美蓝染色液(0.4%)

货号：G1185
规格：100mL/500mL
保存：室温，避光保存，有效期 1 年。

产品介绍：

吕氏碱性美蓝染色液(0.4%)常用于对酵母菌的活细胞染色，由于活细胞的新陈代谢作用，细胞内具有较强的还原能力，能使美蓝由蓝色的氧化型变为无色的还原型。因此，具有还原能力的酵母菌活细胞是无色的，而死细胞或代谢作用微弱的衰老细胞则呈蓝色或淡蓝色。

操作步骤：（*仅供参考*）

1. 滴一小滴吕氏碱性美蓝染色液于载玻片中央，按无菌操作取少量酵母菌与其混合均匀。
2. 用镊子取一块盖玻片，将盖玻片一边与菌体接触，缓缓将盖玻片倾斜并覆盖在菌液上。
3. 放置约5min 后，先用低倍镜后用高倍镜(不用油镜)观察酵母的形态和出芽情况，并用颜色区别死活细胞。
4. 染色30min后再次观察，注意死细胞是否增加。

实验结果：

酵母菌活细胞	无色
酵母菌死细胞	蓝色或淡蓝色

注意事项：

1. 用接种环将菌体与染液混合时不要剧烈涂抹，以免破坏细胞。
2. 滴加染液要适中，否则用盖玻片覆盖时，染液过多会溢出，过少会产生大量气泡。
3. 盖玻片要缓慢倾斜覆盖，以免产生气泡。

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Loeffler's Methylene Blue Stain Solution, 0.4%

Cat: G1185
Size:100mL/500mL
Storage: RT, avoid light, valid for 1 year.

Introduction

Loeffler's Methylene Blue Stain Solution, 0.4% is generally used as a way to obtain a quick estimate of the percentage of viable cells in a yeast sample. Viable yeast cells contain an enzyme that decolorizes methylene blue, whereas dead cells do not. As a result, when yeast cells are suspended in a solution containing the dye, it stains the dead cells blue, but the live cells remain unstained.

Protocol(*for reference only*)

1. Drop a little Loeffler's Methylene Blue Stain Solution, 0.4% onto glass slide and take a drop of yeast culture. Then mix.
2. Place a coverslip over it.
3. 5mins later, observe under low power of the microsope for budding in yeast and distinguishing dead cells from living ones by color.
4. Observe again after staining for 30 min. Note whether the number of dead cells increase or not.

Result

Living cells of yeast	Colorless
Dead cells of yeast	Blue

Note

1. Don't smear it violently when mixing the bacteria with the dye solution with the inoculation ring to avoid damaging the cells.
2. The amount of dye should be moderate, otherwise when the cover glass is used to cover, too much dye will overflow and too little will produce a lot of bubbles.
3. The cover glass should be covered slowly to avoid bubbles.