

Kovac 试剂

货号: G3180

规格: 100mL

保存: 室温, 避光保存, 6 个月有效。

产品介绍:

细菌的生化试验(也称生化反应)是指利用不同细菌对底物的分解能力不同, 由此产生的代谢产物也不同的性质, 通过生物化学的方法测定底物种类和生成速率来进行菌种鉴别的实验方法。其中吲哚试验就是典型的氨基酸和蛋白质的代谢试验。吲哚试验原理是某些具有色氨酸酶的细菌能够分解蛋白胨中的色氨酸生成吲哚(靛基质), 吲哚与底物结合形成红色化合物玫瑰吲哚。

Kovac 试剂又称柯氏试剂或吲哚试剂, 其原理是微生物中含有的色氨酸酶能将蛋白胨中的色氨酸分解为吲哚, 无色吲哚和试剂中的显色底物结合形成红色的玫瑰吲哚。Kovac 试剂特别适用于肠杆菌科细菌、非发酵菌、寄养性细菌、厌氧菌的鉴定。该试剂仅用于科研领域, 不宜用于临床诊断或其他用途。

自备材料:

试管或 15ml 离心管、蛋白胨水培养基、恒温摇床

操作步骤: (仅供参考)

1. 将待检细菌接种于培养基, 置于恒温摇床 37℃ 培养 24-48 小时至对数期。
2. 根据试管或离心管的容积确定分装菌的体积, 一般保证菌液在容积的 1/4-1/2 之间, 5ml 左右。
3. 沿容器壁缓慢加入 Kovac 试剂 0.2-1ml, 摇匀试管以便提取和浓缩吲哚, 静置分层后观察结果。(见注意事项 2)

染色结果:

吲哚实验阳性	红色
吲哚试验阴性	颜色无变化 (黄色)

注意事项:

1. 细菌培养时, 注意避免污染。
2. 加入的 Kovac 试剂体积须能形成 2-4mm 的分层。
3. Kovac Reagent 仅用于科研目的, 不可用于临床诊断。
4. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

Kovac Reagent

Cat: G3180

Size: 100mL

Storage: RT, valid for 6 month.

Introduction

Biochemical test of bacteria refers to the experimental method of strain identification by measuring the type and production rate of substrates through biochemical methods, using different bacteria with different decomposition abilities of substrates and different properties of metabolites. Indole test is a typical metabolic test of amino acids and proteins. The principle of indole test is that some bacteria with tryptophan enzyme can decompose tryptophan in peptone to produce indole (indole matrix), which combines with substrate to form red compound rose indole.

Kovac Reagent is also called Coriolis reagent or indole reagent. Its principle is that tryptophan enzyme contained in microorganism can decompose tryptophan in peptone into indole. Colorless indole combines with chromogenic substrate in reagent to form red rose indole. Kovac reagent is especially suitable for the identification of Enterobacteriaceae bacteria, non fermenting bacteria, foster bacteria and anaerobic bacteria. The reagent is only used in scientific research, and is not suitable for clinical diagnosis or other purposes.

Self Provided Materials

Test tube or 15ml centrifuge tube, peptone water medium, constant temperature shaking table

Protocol(for reference only)

1. Inoculate the bacteria to be tested into the culture medium and place them in a constant temperature shaking table at 37 °C for 24-48 hours to logarithmic period.
2. Determine the volume of the subpackaged bacteria according to the volume of the test tube or centrifuge tube, and generally ensure that the bacterial solution is between 1/4-1/2 of the volume, about 5ml.
3. Slowly add 0.2-1ml of Kovac reagent along the wall of the container, shake the test tube evenly to extract and concentrate indole. Then observe the color change of the organic layer. (see Note 2)

Result

Positive	Red
Negative	No change in color (Yellow)

Note

1. When cultivating bacteria, pay attention to avoid pollution.
2. The volume of Kovac reagent added must be able to form a layer of 2-4mm.
3. Kovac Reagent is only used for scientific research purposes, not for clinical diagnosis.
4. For your safety and health, please wear experimental clothes and disposable gloves.