V02

Griess 试剂

货号：G9440
规格：10g
保存：室温，避光保存，有效期 6 个月。

产品介绍：

Griess 实验多用于尿亚硝酸盐定性实验，其原理是大肠埃希氏菌等革兰阴性杆菌能还原尿液中的硝酸盐为亚硝酸盐，亚硝酸盐使 Griess 试剂中的对氨基苯磺酸重氮化，成为对重氮苯磺酸，重氮苯磺酸与α-萘胺结合成 N-α-萘胺偶氮苯磺酸，呈红色。该试剂仅用于科研领域，不适用于临床诊断或其他用途。

操作步骤：(*仅供参考*)

1、 在试管中加入 5mL 尿液，立即加入 0.05g Griess 试剂。
2、 振荡混合，观察结果。

染色结果：

橙红或干粉变红沉淀	超出测量限度
粉红至玫瑰红色	阳性
颜色无变化	阴性

注意事项：

1、 尿液必须新鲜。
2、 产生阳性结果取决于如下 4 个条件：
①体内有适量的硝酸盐存在；
②尿液中致病菌含硝酸盐还原酶；
③尿液在膀胱内滞留时间应大于 4h；
④使用抗生素 48h 内可能会干扰本实验。

相关文献：

[1] Yu Bao,Zhi Li,Si-Hao Chen,et al.Artemisinin is highly soluble in polyethylene Glycol 4000 and such solution has multiple biological effects.Acta Biochimica Polonica, Quarterly by Polish Biochemical Society.May 2020.(IF 1.626)

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Griess Reagent

Cat: G9440
Size: 10g
Storage: RT, avoid light, valid for 6 months.

Introduction

Griess experiment is mostly used for qualitative experiment of urine nitrite. Its principle is that gram negative bacteria such as Escherichia coli can reduce nitrate in urine as nitrite. Nitrite diazotizes p-aminobenzenesulfonic acid in Griess reagent to p-diazobenzenesulfonic acid, and diazepine sulfonic acid is combined with α -naphthylamine to form n-α-naphthylaminobenzenesulfonic acid, which is red. The reagent is only used in scientific research and is not suitable for clinical diagnosis or other purposes.

Protocol(*for reference only*)

1. Add 5mL of urine into the test tube and add 0.05g Griess Reagent immediately.
2. Oscillation mixing, observation results.

Result

Orange Red Or Dry Powder Turned Red	Beyond the Measurement Limit
Pink To Rose	Positive
No Change In Color	Negative

Note

1. Urine must be fresh.
2. The positive results are determined by the following four conditions:
   ① There is a proper amount of nitrate in the body;
   ② The bacteria in urine contain nitrate reductase;
   ③ The retention time of urine in bladder should be more than 4 h;
   ④ The use of antibiotics may interfere with the experiment within 48 h.

Reference

[1] Yu Bao,Zhi Li,Si-Hao Chen,et al.Artemisinin is highly soluble in polyethylene Glycol 4000 and such solution has multiple biological effects.Acta Biochimica Polonica, Quarterly by Polish Biochemical Society.May 2020.(IF 1.626)