

## TTC 染色液(0.4%)

货号: G3004

规格: 100mL/500mL

保存: 2-8°C, 避光保存, 有效期 1 年。

### 产品介绍:

2,3,5-氯化三苯基四氮唑 (TTC)是脂溶性光敏感复合物,常用于检测种子的生存能力以及检测哺乳动物组织的缺血梗塞。它是呼吸链中吡啶—核苷结构酶系统的质子受体,能与正常组织中的脱氢酶反应而呈红色。有活力种子胚组织活细胞中的脱氢酶可以将 TTC 还原成不溶性的红色稳定的三苯基甲臞(TTF),如果胚种死亡或胚种生活力衰退,则不能染色或染色较浅。因此可以根据胚种的染色部位和染色深浅程度来鉴定种子的生活力。

### 操作步骤: (仅供参考)

1. 将待测种子用温水(30-35°C)浸泡 2~6h,使种子充分吸胀。
2. 随机取种子 100 粒,沿种胚中心线纵切为两半,将每粒种子的一半分别置于两个培养皿中,备用。
3. (可选)可将其中一半种子置于沸水中煮沸 5min,杀死细胞,作为阴性对照。
4. 向含有种子的培养皿中加入 TTC 染色液(0.4%),以浸没种子为度。
5. 放入 30-35°C的恒温箱内保温 30min-1h。
6. 倒出 TTC 染色液,用自来水冲洗 2~3 次,立即观察种子着染色情况。

### 染色结果:

有活力的种子	红色
阴性对照和无活力种子	不被染色

### 注意事项:

1. TTC 溶液若变成红色则不可再用。
2. 显色时要使种子全部浸入 TTC 染色液中。
3. TTC 染色后应立即观察,不可久放。
4. 为了您的安全和健康,请穿实验服并戴一次性手套操作。

## TTC Solution, 0.4%

**Cat:** G3004

**Size:** 100mL/500mL

**Storage:** 2-8°C, avoid light, valid for 1 year.

### Introduction

2,3,5-triphenyltetrazolium chloride (TTC) is a lipid soluble light sensitive complex, which is commonly used to detect the viability of seeds and the ischemic infarction of mammalian tissues. It is the proton receptor of pyridyl-nucleoside structural enzyme system in respiratory chain, which can react with dehydrogenase in normal tissues and show red color. The dehydrogenase in the living cells of the viable seed embryo tissue can reduce TTC to insoluble red stable triphenylmethane (TTF). If the embryo dies or the viability of the embryo declines, it cannot be stained or stained shallowly. Therefore, the viability of seeds can be determined according to the location and depth of staining.

### Protocols(*for reference only*)

1. Soak the seeds to be tested in warm water (30-35 °C) for 2-6h to make the seeds fully imbibed.
2. Take 100 seeds randomly, cut them into two halves along the center line of embryo, and put half of each seed in two petri dishes for use.
3. (*optional*)place half of the seeds in boiling water and boil for 5min to kill cells as negative control.
4. Add TTC Solution, 0.4% to the petri dish containing seeds to submerge the seeds.
5. Put it into a constant temperature box at 30-35 °C for 30min-1h.
6. Pour out TTC Solution, 0.4%, wash with tap water for 2-3 times, and immediately observe the staining of seeds.

### Result

Active seeds	Red
Negative control and inactive seeds	Not colored

### Note

1. TTC Solution, 0.4% can not be reused if it turns red.
2. The seeds should be absolutely immersed in TTC Solution, 0.4% when staining.
3. Immediately observe after staining with TTC Solution, 0.4% and the seeds can not be placed for a long time.
4. For your safety and health, please wear experimental clothes and disposable gloves.