

蔗糖-PFA 溶液(30%)

货号: G2133

规格: 500mL

保存: 2-8℃保存, 有效期 3 个月。

产品介绍:

固定的目的在于保存细胞和组织的原有形态结构, 固定剂能阻止内源性溶酶体酶对自身组织和细胞的自溶、抑制细菌和霉菌的生长。固定剂通过凝固、生成添加化合物等使蛋白质内部结构发生改变, 从而使酶失活。固定液分为醛类固定液、汞类固定液、醇类固定液、氧化剂类固定液、苦味酸盐类固定液等, 较为常用的是醛类中的福尔马林、醇类中的乙醇。

蔗糖-PFA 溶液(30%)由 4%PFA、磷酸盐、30%蔗糖组成, pH 为 7.4, 该固定液适合于特殊要求的细胞或组织的固定, 亦可作为特殊样本的脱水剂。

操作步骤: (仅供参考)

- 1、新鲜组织取材, 用充分 PBS 清洗数次, 进行组织固定。
- 2、置于 10-20 倍体积的蔗糖-PFA 溶液(30%)中 4℃固定, 每 12h-24h 更换一次溶液, 组织完全沉底后取出。
- 3、根据实验要求进行后续包埋等操作。

注意事项:

1. PFA 溶液有一定刺激性和腐蚀性, 请在通风环境下小心操作。
2. 组织固定:
小样本(厚度小于 5mm)或分离的胚胎建议用 4℃预冷的 G2161-10%中性福尔马林或 P1110-4%组织细胞固定液固定 1h 后, PBS 稍洗。
大样本(厚度在 5-20mm)建议 4℃固定至少 8h, PBS 稍洗。
特大样本(厚度超过 20mm)建议使用固定液进行灌流, 原位固定后取出, PBS 稍洗。
3. 避免过度延长固定时间, 否则易引起细胞内生物大分子过度交联。
4. 固定液的容量应足够, 一般固定液与组织块的体积比率应大于 10:1。
5. 温度对固定的影响很明显, 提高温度可以加速固定作用, 但温度不宜过高。
6. 取出新鲜组织后, 应及时固定, 无法及时固定时, 应保存于生理盐水中及时送检。
7. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

Sucrose-PFA Solution, 30%

Cat: G2133

Size: 500mL

Storage: 2-8°C, valid for 3 months.

Introduction

The purpose of fix is to preserve the original morphological structure of cells and tissues. The fixative can prevent the autolysis of endogenous lysosomal enzymes to their own tissues and cells and inhibit the growth of bacteria and molds. The fixative makes the internal structure of the protein change by coagulating and adding compounds, so that the enzyme is inactivated. The fixative can be divided into aldehyde fixative, mercury fixative, alcohol fixative, oxidant fixative, picric acid salt fixative, etc. Formaldehyde in aldehydes and alcohol in alcohols are more commonly used.

Sucrose-PFA Solution, 30% is composed of 4% PFA, phosphate and 30% sucrose, with a pH of 7.4. The solution is suitable for fixing cells or tissues with special requirements, and can also be used as a dehydrating agent for special samples.

Protocol(for reference only)

1. Pick up fresh tissue and clean several times with absolute PBS, then fix immediately.
2. Place the tissue in 10-20 times volume of Sucrose-PFA Solution, 30% and dehydrated at 4°C. The solution was replaced every 12-24 hours. After the tissue completely sank, it was removed.
3. According to the experimental requirements for subsequent embedding and other operations.

Note

1. PFA solution has certain irritation and corrosiveness. Please operate carefully in ventilated environment.
2. Fixation of tissues of different sizes:
For small samples (less than 5mm in thickness) or isolated embryos should be fixed with G2161-Neutral Buffered Formalin, 10% or P1110-Paraformaldehyde Fixative, 4% for 1 hour, and then washed with PBS.
For large samples (5-20 mm in thickness), it is recommended to fix them at 4 °C for at least 8 h and wash them with PBS.
For extra large samples (more than 20 mm thick), it is recommended to use fixative for perfusion. After in-situ fixation, take out the samples and wash them with PBS.
3. Avoid excessively prolonging the fixation time, otherwise it may cause excessive cross-linking of biological macromolecules in cells.
4. The fixing time changes due to different thickness of tissue samples.
5. The effect of temperature on fixation is obvious. Increasing the temperature can accelerate the fixation, but the temperature should not be too high.
6. After fresh tissue is taken out, it should be fixed in time. If it can not be fixed in time, it should be stored in physiological saline for inspection in time.
7. For your safety and health, please wear experimental clothes and disposable gloves.