

JYBL- I 脱钙液

货号: G2470

规格: 500mL

保存: 室温, 避光保存, 有效期 1 年。

产品介绍:

在组织切片过程中, 一些组织内含有骨质或钙化灶时, 含钙的组织不宜直接用石蜡包埋切片。这是因为钙和石蜡之间的密度不同, 较难切出完整的切片。对含钙组织最好固定之后, 再进行脱钙或二者同时进行。然后进行下游操作如脱水、透明、浸蜡、包埋、切片。用于脱钙的试剂很多, 脱钙剂包括有机酸、无机酸、乙二胺四乙酸(EDTA)以及电解法脱钙。EDTA 是一种相对较好的螯合脱钙剂, 对组织结构影响最小, 可以较好的保存组织的某些酶类, 经 EDTA 脱钙后的组织可以进行免疫组化和原位杂交染色。但是该法脱钙速度太慢, 一般需要数周至数月。

JYBL- I 脱钙液主要由稀酸、甲醛、甲酸等组成。其优点是: ①作用迅速, 24~36h 即可; ②对组织的结构损害小; ③脱钙完全。该脱钙液特别适用于日常病理科骨组织标本的脱钙, 但不宜用化学方法确定脱钙终点。

自备材料:

PBS、蒸馏水、加热装置或微波炉

操作步骤: (仅供参考)

- 1、骨组织脱钙时, 取材不易过厚, 一般大约5mm。
- 2、组织固定后, 用PBS清洗3次, 每次20min。
- 3、组织用蒸馏水清洗3次, 每次20min。
- 4、组织转移至20~30倍体积的JYBL- I 脱钙液中, 脱钙24~36h。如果想加快脱钙速度, 可以置于37℃进行脱钙。
- 5、用蒸馏水冲洗数次。
- 6、常规脱水、包埋。

注意事项:

- 1、厚度5mm的骨组织块脱钙时间一般脱钙24~36h即可。
- 2、适当加温能加快脱钙的速度, 一般维持在37~40℃, 温度过高容易使骨组织松散解体, 尤其切忌大于60℃。
- 3、脱钙应彻底, 防止脱钙不足或过度。脱钙程度应控制在不影响组织切片的同时尽量缩短脱钙时间, 以免脱钙过长引起组织损害。
- 4、脱钙用具避免使用金属容器, 尽量使用玻璃容器。
- 5、骨组织脱钙应先固定后脱钙或脱钙固定同时进行, 不应先脱钙后固定, 以便减少组织的损伤程度。
- 6、每隔一段时间检测一次脱钙程度, 脱钙过度会增加组织的损伤程度, 影响染色结果。
- 7、为了您的安全和健康, 请穿实验服并戴一次性手套操作。

附录:

脱钙终点的测定(物理法): 采用针刺、手掐、钳夹等方法, 当骨组织变软或针刺时没有阻力感即可终止脱钙。物理检测法会对组织结构有一定的损害, 尽量避免用力过大或反复检测。

JYBL- I Decalcifying Solution

Cat: G2470

Size: 500mL

Storage: RT, avoid light, valid for 1 year.

Introduction

In the process of tissue sectioning, when some tissues contain bone or calcification, the tissue containing calcium should not be directly embedded in paraffin. This is because the density between calcium and paraffin is different, it is difficult to cut a complete section. It is better to fix the calcium containing tissue before decalcification or both operate at the same time. Then continue next operations such as dehydration, transparency, wax immersion, embedding and slicing. There are many decalcification reagents, including organic acid, inorganic acid, EDTA and electrolytic decalcification. EDTA is a relatively good chelating decalcifying agent, which has the least influence on the tissue structure and can better preserve some enzymes of the tissue. The tissue after decalcification by EDTA can be stained by immunohistochemistry and in situ hybridization. However, the speed of decalcification is too slow, which usually takes weeks to months.

JYBL- I Decalcifying Solution is mainly composed of dilute acid, formaldehyde, formic acid, etc. Its advantages are: ① rapid action, only for 24-36 h; ② little damage to the structure of the tissue; ③ complete decalcification. The decalcification solution is especially suitable for the decalcification of bone tissue samples in daily pathology department, but it is not suitable to determine the end point of decalcification by chemical method.

Self Provided Materials

PBS, Distilled water, Heating device, Microwave Oven

Protocol(for reference only)

1. When decalcifying the bone tissue, the section is not suitable to be too thick, generally about 5mm.
2. After fixing the tissue, wash it with PBS for three times for 20 min each time.
3. Wash the tissue with distilled water three times for 20 min each time.
4. Transfer the tissue to JYBL- I Decalcifying Solution of 20-30 times volume and decalcify for 24-36 h. If you want to speed up the decalcification, you can put it at 37 °C.
5. Rinse several times with distilled water.
6. Conventional dehydration and embedding.

Note

1. The decalcification time of 5 mm thick bone tissue block is generally 24-36 h.
2. Proper heating can accelerate the speed of decalcification, generally maintain at 37-40 °C, too high temperature is easy to cause bone tissue loose disintegration, especially avoid more than 60 °C.
3. Decalcification should be completely to prevent insufficient or excessive decalcification. The degree of decalcification should be controlled to shorten the decalcification time as much as possible without affecting the tissue section, so as to avoid tissue damage caused by too long decalcification.
4. Avoid using metal containers for decalcification appliances, and try to use glass containers.
5. Decalcification of bone tissue should be operated after fixation or fixed at the same time. Decalcification should not be carried out before fixation in order to reduce the degree of tissue damage.
6. Detect the degree of decalcification every span. Excessive decalcification will increase the degree of tissue damage and affect the staining results.
7. For your safety and health, please wear experimental clothes and disposable gloves.

Appendix

Determination of the end point of decalcification (physical method): acupuncture, hand pinching, clamp and other methods are used to stop decalcification when the bone tissue becomes soft or there is no sense of resistance during acupuncture. Physical detection will damage the tissue structure to some extent, and try to avoid excessive force or repeated detection.