



TTC 染色实验报告

一、实验器材及试剂

1、 实验器材

名称	厂家	型号
恒温水浴锅	姜堰市无力医疗器械厂有限公司	TL-42OD
标本瓶	Servicebio	
徕卡刀片	上海徕卡仪器有限公司	LEICA 819
解剖镊		
照相机	佳能	70D

2、 主要实验试剂

试剂名称	厂家	货号
TTC 染液	Servicebio	G1017
固定液	Servicebio	G1101

二、新鲜组织切片制备及染色实验步骤

- 取材：**动物麻醉后立即取新鲜组织（如脑、心脏），不经固定液固定，将组织直接放入 OCT 包埋剂-20℃速冻 30min，如果不急用，可以暂时放置-80℃冻存。
- 组织块切片：**将冻好的组织稍解冻，用莱卡新刀片手动切片，厚度 2-3mm 为宜，切面整齐。
- TTC 染色：**将切片放入提前 37℃预热好的的 TTC 孵育液中，放入 37℃水浴锅中避光孵育 30min，间隔 10min 轻轻摇动组织，使其均匀接触到染色液，并观察染色结果。
- 拍照：**组织成色后，加入固定液终止反应，并避光保存组织，照相机拍照。

三、染色判读：

组织正常区呈红色，梗死区呈苍白色。

四、注意事项：

- 标本越新鲜越好，勿固定，刀片宜薄而锋利，在冰箱中速冻的时间以能顺利切片为宜，保持切片平整。

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武汉赛维尔生物科技有限公司

Wuhan Servicebio Technology Co., Ltd.

- 2、染色后的标本浸存于固定液中避光保存，染色结果能保存数月，在阳光下易褪色；
- 3、TTC 染色液避光 4℃可保存一个月，使用前先复常温。



TTC Staining Experiment Report

I. Experimental Equipment and Reagents

1. Experimental equipment

Equipment name	Manufacturer	Model No.
Thermostatic water bath	Jiangyan Wuli Medical Instrument Factory Co., Ltd.	TL-42OD
Specimen bottle	Servicebio	
Leica blade	Shanghai Leica Instrument Co., Ltd.	LEICA 819
Dissecting forceps		
Camera	Canon	70D

2. Main experimental reagents

Reagent name	Manufacturer	Item No.
TTC Staining solution	Servicebio	G1017
Fixative	Servicebio	G1101

II. Preparation and staining steps of fresh tissue sections

1. Draw materials: After the animal is anesthetized, immediately take fresh tissues (such as brain and heart), then put the tissues without fixation directly into OCT embedding medium and quick-freeze at -20 °C for 30min. If not used urgently, the tissues can be temporarily cryopreserved at -80 °C.

2. Tissue block sectioning: Thaw the frozen tissue slightly and manually slice with a new Leica blade. The thickness of 2-3mm is suitable, and the cut surface should be neat.

3. TTC staining: Put the sections into the 37°C preheated TTC incubation solution, incubate in a 37°C water bath in the dark for 30 min, shake the tissues gently at 10 min intervals to make it evenly contact with the staining solution, and Observe the staining results.

4. Photographing: After the tissues are in color, add into fixative to stop the reaction, then preserve the tissue in dark, and take photo with camera.

III. Interpretation of results:

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The normal tissue area is red, and the infarct area is pale.

IV. Precautions:

1. The fresher the specimen, the better, do not fix, the blade should be thin and sharp, and the time of quick freezing in refrigerator should be suitable for sectioning smoothly, keep the sections flat.
2. The stained specimens should be stored in fixative and protected from light, then the staining results can be kept for several months, they are easily faded in the sun.
3. The TTC staining solution can be stored for one month in the dark at 4°C, return to normal temperature before use.