



植物组织 PAS+萘酚黄 S 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
脱水机	DIAPATH	Donatello
包埋机	武汉俊杰电子有限公司	JB-P5
病理切片机	上海徕卡仪器有限公司	RM2016
冻台	武汉俊杰电子有限公司	JB-L5
组织摊片机	浙江省金华市科迪仪器设备有限公司	KD-P
烤箱	天津市莱玻瑞仪器设备有限公司	GFL-230
载玻片	Servicebio	
正置光学显微镜	日本尼康	NIKON ECLIPSE E100
成像系统	日本尼康	NIKON DS-U3

2、主要实验试剂

试剂名称	厂家	货号
无水乙醇	国药集团化学试剂有限公司	100092683
二甲苯	国药集团化学试剂有限公司	10023418
环保型脱蜡透明液	Servicebio	G1128
PAS+萘酚黄 S 染液套装	Servicebio	G1068
中性树胶	国药集团化学试剂有限公司	10004160

二、实验步骤

- 1、石蜡切片脱蜡至水：依次将切片放入环保型脱蜡透明液I 20min-环保型脱蜡透明液II 20min-无水乙醇I 5min-无水乙醇II 5min-75%酒精 5min，自来水洗。
- 2、切片入 PAS 染液 B 中染色 10min，自来水洗，蒸馏水洗两遍；
- 3、切片入PAS染液A 中浸染25min，避光，流水冲洗5min；
- 4、切片蒸馏水洗两遍，萘酚黄S浸染5min，蒸馏水快洗，无水乙醇两缸脱水。
- 5、脱水封片：切片放入第三缸无水乙醇5min -二甲苯5min透明，中性树胶封片。

地址：湖北省武汉市高新区高新二路 388 号生物医药加速器 C22 栋 5 楼 网址：<http://www.servicebio.cn>
电话：4006-027-178

Add: 5th Floor, C22 Building, Biopark, No. 388 Gaoxin 2nd Road, East Lake High-tech Developing Zone, Wuhan, Hubei, China, 430079 Website: <http://www.servicebio.com> Tel: 027-5111-3188



武汉赛维尔生物科技有限公司

Wuhan Servicebio Technology Co., Ltd.

6、显微镜镜检，图像采集分析。

三、结果判读：

淀粉粒呈紫红色颗粒，细胞壁呈紫红色，蛋白质呈黄色。

四、注意事项：

- 1、PAS染液B要勤换，会影响PAS染液A的显色。
- 2、PAS染液A染色过程中一定要避光。
- 3、封片后蛋白含量少的组织易变暗，不可长时间保存，建议尽早拍照保存结果。

地址：湖北省武汉市高新区高新二路 388 号生物医药加速器 C22 栋 5 楼 网址：<http://www.servicebio.cn>
电话：4006-027-178

Add: 5th Floor, C22 Building, Biopark, No. 388 Gaoxin 2nd Road, East Lake High-tech Developing Zone,
Wuhan, Hubei, China, 430079 Website: <http://www.servicebio.com> Tel: 027-5111-3188



Experimental Report on Plant Tissue Pas and Phenol Yellows

Dyeing

1.Experimental Equipment and Reagents

1.1 Experimental equipment

Name	Manufacturers	Model
Dehydrator	DIAPATH	Donatello
Encapsulation machine	Wuhan Junjie Electronics Co., Ltd.	JB-P5
Pathological slicer	Shanghai Leica Instruments Co., Ltd.	RM2016
Frozen	Wuhan Junjie Electronics Co., Ltd.	JB-L5
Organizing a stall machine	Cody Equipment Co., Ltd., Jinhua City, Zhejiang Province	KD-P
Oven	Tianjin Leiboi Instruments and Equipment Co., Ltd.	GFL-230
Slides	Servicebio	
Positive optical microscope	Nikon, Japan	Nikon Eclipse E100
Imaging systems	Nikon, Japan	Nikon DS-U3

1.2 Main experimental reagents

Reagent name	Manufactor	Article number
Waterless ethanol	China Pharmaceutical Group Chemical Reagents Co., Ltd.	100092683
Xylene	China Pharmaceutical Group Chemical Reagents Co., Ltd.	10023418
BioDewax and Clear Solution	Servicebio	G1128
Pass.s.co.bis-yellow-sedic liquid set	Servicebio	G1068
Neutral gum	China Pharmaceutical Group Chemical Reagents Co., Ltd.	10004160

2.Experimental Steps



- 2.1 Paraffin slides dewaxed as follow: Two changes of pure BioDewax and Clear Solution for 20 min; Two changes of pure ethanol for 5min; 75% ethanol for 5min; Keep slides in tap water.
- 2.2 The slides stained into PAS dye solution B dye for 10 min, tap water wash, distilled water wash twice;
- 2.3 The slides stained into PAS dye solution A for 25 min, to avoid light, Keep slides in tap water for 5 min;
- 2.4 The slides distilled water twice, naphthol yellow S soaked for 5 min, distilled water quickly washed, anhydrous ethanol two cylinders dehydration.
- 2.5 The slides were immersed in xylene to transparent and then coverslip with neutral resin.
- 2.6 Observed under microscope and took images.

3.The results were as follows

The starch granules were purplish red granules, the cell wall was purplish red, and the protein was yellow.

4.Precautions:

- 4.1 The PAS dye B must be changed frequently, which will affect the color development of the PAS dye A.
- 4.2 PAS dye solution A must be protected from light during the dyeing process.
- 4.3 Tissues with low protein content are easy to darken after sealing and cannot be stored for a long time. It is recommended to take photos as soon as possible to save the results.