植物组织染色试剂盒（PAS-N 法）

货号：G4809
规格：3×50mL
保存：2-8℃，避光保存，有效期 6 个月。

产品组成：

名称	3×50mL	保存
试剂(A):PAS 氧化剂	50mL	2-8℃, 避光
试剂(B):Schiff 染色液	50mL	2-8℃, 避光
试剂(C):萘酚黄 S 染色液	50mL	室温, 避光

产品介绍：

植物组织中的淀粉及细胞壁中的糖类物质在高碘酸的作用下暴露出醛基，醛基与 Schiff 试剂试剂结合产生红色反应，即为 PAS 染色。植物中的蛋白质常以糊粉粒的形式贮藏在植物细胞中，呈固体状态，外被一层膜，围合成圆球状的颗粒。萘酚黄 S 与蛋白质形成黄色复合物。因此 PAS 染色结合萘酚黄可以同时显示植物组织中的淀粉粒及蛋白质。

本产品用于植物组织中的蛋白质及淀粉粒染色。经染色后，植物淀粉粒呈紫红色，细胞壁呈紫红色，蛋白质呈现黄色。

操作步骤：*（仅供参考）*

1. 取新鲜植物组织常规固定，常采用 10%的福尔马林，常规脱水包埋。
2. 石蜡切片常规脱蜡至蒸馏水；冰冻切片直接入蒸馏水，浸泡 2min。
3. 滴加 PAS 氧化剂染色 10-15min，蒸馏水洗 2 次，每次 5-10s。
4. 滴加 Schiff 染色液，室温避光染色 10-20min，蒸馏水洗 2 次，每次 5-10s。
5. 滴加萘酚黄 S 染色液中染色 5-10min，蒸馏水快速冲洗 5-10s。
6. 逐级常规乙醇脱水，每级 3-5s, 二甲苯透明，中性树胶封固。

染色结果：

淀粉粒	紫红色颗粒
细胞壁	紫红色
蛋白质	黄色

注意事项：

1. 切片脱蜡应尽量干净，否则影响染色效果。
2. PAS 氧化剂可重复利用，该染液为透明状，如果呈现明显黄色、有杂质、组织染色着色太浅时需更换新的染液。
3. Schiff 染色液需 2-8℃保存，临用前取出恢复至室温再使用。当溶液颜色明显发红时建议更换新的染液。
4. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Plant Tissue Stain Kit（PAS-NYS method）

Cat: G4809
Size: 3×50mL
Storage: 2-8℃, avoid light, valid for 6 month.

Kit Components

Reagent	3×50mL	Storage
Reagent (A): PAS Oxidant	50mL	2-8℃, avoid light
Reagent (B): Schiff Reagent	50mL	2-8℃, avoid light
Reagent (C): NYS Solution	50mL	RT, avoid light

Introduction

Starch in plant tissues and sugars in cell walls are exposed to aldehyde groups under the action of oxidants. The aldehyde groups combine with Schiff reagent to produce a red reaction, which is called PAS staining. Proteins in plants are often stored in the form of aleurone particles in plant cells, in a solid state, surrounded by a layer of membrane, forming spherical particles. Naphthol yellow S forms a yellow complex with proteins. Therefore, PAS staining combined with naphthol yellow can simultaneously display starch granules and proteins in plant tissues.

This product is used for staining protein and starch granules in plant tissues. After staining, the plant starch granules are purple red, the cell walls are purple red, and the proteins are yellow.

Protocol(*for reference only*)

1. Take fresh plant tissue for routine fixation, recommend 10% formalin, and perform routine dehydration and embedding.
2. Conventional dewaxing of paraffin slices to distilled water; Freeze the slices directly into distilled water and soak for 2min.
3. Stain with PAS Oxidant for 10-15min, wash twice with distilled water for 5-10s each time.
4. Stain with Schiff Reagent in dark at room temperature for 10-20min, wash twice with distilled water for 5-10s each time.
5. Stain with NYS Solution for 5-10min, then rinse quickly with distilled water for 5-10s.
6. Dehydrate by series of ethanol and each for 3-5s, transparent with xylene and seal with neutral gum.

Result

Starch granules	Purple red granules
Cell well	Purple red
Protein	Yellow

Note

1. Slice dewaxing should be as clean as possible, otherwise it will affect the staining effect.
2. The PAS Oxidant can be reused, and the dye solution is transparent. If it shows obvious yellow color, impurities, or tissue staining is too light, a new dye solution needs to be replaced.
3. Schiff Reagent needs to be stored at 2-8℃, and before use, it should be taken out and restored to room temperature. When the color of the solution turns noticeably red, it is recommended to replace it with a new dye solution.
4. For your safety and health, please wear laboratory clothes and disposable gloves for operation.