基底膜六胺银染色试剂盒

货号： G1790
规格： 6×50mL
保存： 2-8℃, 避光保存, 有效期 6 个月。

产品组成：

名称		6×50mL	保存
试剂(A): 氧化剂		50mL	2-8℃, 避光
试剂(B): 铁明矾溶液		50mL	室温, 避光
试剂(C): 六胺银工作液	C1:六胺银原液	25mL	2-8℃, 避光
	C2:硼酸钠溶液	25mL	室温
临用前，C1、C2 等量混合即为六胺银工作液，现用现配。			
试剂(D): 氯化金溶液		50mL	2-8℃, 避光
试剂(E): 海波溶液		50mL	室温
试剂(F): 淡绿溶液		50mL	室温, 避光

产品介绍：

基底膜六胺银(GMS)染色是一种经典显示基底膜的方法。组织经过氧化，使基底膜内的黏多糖暴露出醛基，醛基把六胺银还原为黑色的金属银。氯化金可使金属银转变为更稳定的金属金，同时使背景更清晰。六胺银染色能清晰地显示基底膜，在肾病变中应用最多，常用来观察肾小球毛细血管基底膜在炎性损伤时如断裂、增生、折叠等形态改变。

操作步骤：(*仅供参考*)

1. 石蜡切片常规脱蜡复水。
2. 切片入氧化剂氧化 15min。 蒸馏水洗 2min。
3. 入铁明矾溶液染色 10min。 蒸馏水洗 2min。
4. C1、C2 等量混合配置六胺银工作液，60℃预热 3-5min。
5. 切片充分清洗后倾去多余水分，滴加或浸入预热的六胺银工作液中，60℃水浴或恒温染色 20-30min，切片呈烟草黄色或黑色为止。入蒸馏水中清洗 1min。
6. 置于海波溶液 1 min。蒸馏水 1min。
7. 用氯化金溶液调色 1-2min。蒸馏水洗 2 min。
8. 用淡绿溶液复染 1 min。蒸馏水洗 1min。
9. 95%乙醇 5s，100%乙醇Ⅰ5s，100 乙醇Ⅱ30s，二甲苯透明两次，每次 1min，中性树胶封封固。

染色结果：

肾小球囊基底膜、肾毛细血管球基底膜	红褐色到黑色
背景	绿色

注意事项：

1. 实验中所用玻璃器皿，应预先放入洗液浸泡过并冲洗干净，烤干。
2. 六胺银工作液配制后可放人温箱中预热。
3. 配制好的六胺银工作液是一次性的，不能久放，建议在 6 个小时内使用完毕。
4. 氯化金调色时，需要在显微镜下观察和控制调色结果。
5. 淡绿溶液为衬染试剂，可根据观察需要自行更换为其他衬染试剂如 G1100-伊红染色液、G1020-HE 染色液等。
6. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Methenamine Silver Plating Stain Kit For Basement Membranes

Cat: G1790
Size: 6×50mL
Storage:2-8℃, avoid light, valid for 6 months.

Kit Components

Reagent		6×50mL	Storage
Reagent(A): Oxidant		50mL	2-8℃, avoid light
Reagent(B): Ammonium Ferric Sulfate Solution		50mL	RT, avoid light
Reagent(C): Methenamine Silver Working Solution	C1: Methenamine Silver Solution	25mL	2-8℃, avoid light
	C2: Sodium Borate Solution	25mL	RT
Before use, mix C1 with C2 in equal amount to form Hexamine Silver Working Solution. It is ready to use.			
Reagent(D): Gold Chloride Solution		50mL	2-8℃, avoid light
Reagent(E): Hypo Solution		50mL	RT
Reagent(F): Light Green Solution		50mL	RT, avoid light

Introduction

Methenamine Silver Staining is a classical method to display basement membrane. After oxidation, the mucopolysaccharide in the basement membrane was exposed to aldehyde group, which reduced methenamine silver to black metallic silver. Gold Chloride Solution can transform silver into a more stable metal gold and make the background clearer. Methenamine Silver Staining can clearly show the basement membrane, which is widely used in nephrosis. It is often used to observe the morphological changes of glomerular capillary basement membrane in inflammatory injury, such as rupture, proliferation, folding and so on.

Protocol *(for reference only)*

1. Dewax the paraffin section in xylene and rehydrate in ethanol.
2. Add Oxidant onto the section and oxidize for 15mins.Wash with distilled water for 2mins.
3. Stain with Ammonium Ferric Sulfate Solution for 10mins.Wash with distilled water for 2mins.
4. Mix the same amount of C1 and C2 to prepare silver hexamine working solution, and preheat at 60 ℃ for 3-5min.
5. After the slices are fully cleaned, pour out the excess water, drop or immerse in the preheated silver hexamine working solution, and dye in 60 ℃ water bath or constant temperature for 20-30min until the slices are tobacco yellow or black. Wash in distilled water for 1min.
6. Soak in Hypo Solution for 1 min.Wash with distilled water for 1mins.
7. Color with Gold Chloride Solution for 1-2mins.Wash with distilled water for 2mins.
8. Re-dyeing with Light Green Solution for 1 min.Wash with distilled water for 1min.
9. Dehydrate in 95% ethanol, transparent by xylene and seal with resinene.

Result

Basement membrane of glomerular capsule and glomerular capillaries	Reddish Brown to Black
Background	Green

Note

1. The glass container used in the experiment shall be soaked in the washing liquid in advance, rinsed and dried.
2. The prepared Methenamine Silver Working Solution can be put into a temperature box for preheating.
3. The prepared silver hexamine working solution is disposable and cannot be put for a long time. It is recommended to use it within 6 hours.
4. When gold chloride is used for color matching, it is necessary to observe and control the color matching results under the microscope.
5. The light green solution is a lining reagent, which can be replaced with other lining reagents according to the observation needs, such as g1100 eosin staining solution, g1020-he staining solution, etc.
6. For your safety and health, please wear experimental clothes and disposable gloves.