尿酸盐染色试剂盒(Gomori 银法)

货号： G3030
规格： 4×50mL
保存： 2-8℃, 避光保存, 有效期 6 个月。

产品组成：

名称		4×50mL	保存
试剂(A): Gomori 六胺银溶液	A1:Gomori 六胺银 A	25mL	2-8℃，避光
	A2:Gomori 六胺银 B	25mL	室温
临用前，按 A1:A2 =1:1 的比例配制试剂(A)，不宜提前配制。			
试剂(B): 氯化金溶液		50mL	2-8℃，避光
试剂(C): 海波溶液		50mL	室温
试剂(D): 伊红染色液		50mL	室温，避光
试剂(E): Gomori 对照液		10mL	室温

产品介绍：

人体内嘌呤(核苷酸)代谢的分解产物是尿酸盐。大多数尿酸并非全部经由肾脏排除，有时以尿酸钠的形式存在于血液循环中。在痛风患者血液中尿酸钠含量较高，过高的尿酸钠易出现尿酸盐沉积，从而导致痛风石、滑膜炎、关节炎、肾结石等。大多数尿酸盐镜下可见针状结晶体互相平行排列。

尿酸盐染色试剂盒(Gomori 银法)采用 Gomori 六胺银法对尿酸盐染色，使尿酸盐结晶呈黑色，常用于辅助诊断尿酸盐所致的痛风结节。由于尿酸盐易溶于水，而不易溶于乙醇，故固定时，应采用乙醇而不是福尔马林等固定液。

操作步骤：(*仅供参考*)

1. 组织固定：固定于无水乙醇 16h 或过夜。再经无水乙醇浸泡 3 次，每次 30min。
2. 经二甲苯浸泡 2 次，每次 20min，常规浸蜡包埋。
3. 切片厚度 5μm，二甲苯脱蜡至无水乙醇。
4. 提前配制好 Gomori 六胺银溶液，在 2h 内使用完毕。切片浸入 Gomori 六胺银溶液(加盖)，并置于 58～60℃恒温箱避光孵育 30min。如有尿酸盐存在，切片呈黑色。蒸馏水稍洗。
5. 浸入氯化金溶液处理 1min。自来水稍洗。
6. 入海波溶液处理 5min。自来水冲洗 5min。
7. 伊红染色液淡染 30s。自来水稍洗。
8. 常规脱水透明，中性树胶封固。

染色结果：

尿酸盐结晶	黑色
背景	淡红色

阴性对照：

取连续切片脱蜡后，先经 Gomori 对照液孵育 5min，用无水乙醇浸洗 2 次，入 Gomori 六胺银溶液。其余步骤同前，钙盐呈阴性。

注意事项：

1. 尿酸盐易溶于水，组织固定必须用无水乙醇，切片入 Gomori 六胺银溶液前避免切片与水接触。
2. 如果用水浴锅代替恒温箱，温度应适当调节至 48～50℃，否则切片易变黑。
3. 组织内如果含有钙盐，易出现假阳性，应注意与针状的尿酸盐区分。
4. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Urate Stain Kit(GMS Method)

Cat: G3030
Size: 4×50mL
Storage:2-8 ℃, avoid light, valid for 6 months.

Kit Components

Reagent		4×50mL	Storage
Reagent (A): Gomori Silver Hexamine Solution	A1:GSH Solution A	25mL	2-8℃, avoid light
	A2:GSH Solution B	25mL	RT
Before use, mix A1 with A2 as the radio of 1:1 to form Reagent (A), which is not suitable to make in advance.			
Reagent (B): Gold Chloride Solution		50mL	2-8℃, avoid light
Reagent (C): Hypo Solution		50mL	RT
Reagent (D): Eosin Staining Solution		50mL	RT, avoid light
Reagent (E): Gomori Control Solution		10mL	RT

Introduction

The breakdown product of purine (nucleotide) metabolism in human body is urate. Most of uric acid is not completely eliminated by the kidney, sometimes in the form of sodium urate in the blood circulation. The content of sodium urate in the blood of patients with gout is high, and the excessive sodium urate is prone to the deposition of urate, which leads to gout stone, synovitis, arthritis, kidney stone, etc. Under the microscope, most of urate are in shape of acicular crystals that parallel to each other.

Urate Stain Kit(GMS Method) is used to stain urate and make the crystal of urate black. It is often used to assist in the diagnosis of gout nodules caused by urate. Since urate is easily soluble in water but not in ethanol. When fixing, use ethanol instead of formalin or other fixatives.

Protocol(*for reference only*)

1. Tissue fixation: fix in absolute ethanol for 16 h or overnight. Then soak in absolute ethanol for 3 times, 30 min each time.
2. Soak in xylene twice for 20min each time, and conventionally embed in wax.
3. Cut section in 5μm thick, dewax in xylene to absolute ethanol.
4. Prepare Gomori Silver Hexamine Solution in advance and use it within 2h. Immerse the section in the Gomori Silver Hexamine Solution (capped) and incubate at 58-60 ℃ for 30min. If there is urate, the section is black.Slightly wash with distilled water.
5. Treat in Gold Chloride Solution for 1min. Slightly wash with tap water.
6. Treat in Hypo Solution for 5min.Wash with tap water for 5min.
7. Slightly stain with Eosin Staining Solution for 30s. Slightly wash with tap water.
8. Conventionally dehydrate and transparent, then seal with resinene.

Result

Urate crystal	Black
Background	Light Red

Negative control：

Take continuous sections and dewax. Incubate in Gomori Control Solution for 5min, wash twice with absolute ethanol, and then put into Gomori Silver Hexamine Solution. The other steps are the same as before, calcium salt is negative.

Note

1. Urate is easy to dissolve in water, so must use absolute ethanol for tissue fixation. Avoid the section contacting with water before entering Gomori Silver Hexamine Solution.
2. If replace thermostat with water bath, the temperature should be properly adjusted to 48-50 ℃, otherwise the section will turn black.
3. If there is calcium salt in the tissue, it is easy to appear false-positive. It should be distinguished from needle like urate.
4. For your safety and health, please wear experimental clothes and disposable gloves.