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铜盐染色试剂盒(红氨酸法)

货号： G3040
规格： 2×50mL
保存： 室温，避光保存，有效期 6 个月。

产品组成：

名称		2×50mL	保存
试剂(A): 红氨酸染色液	A1:红氨酸溶液	2mL	室温，避光
	A2: Dith 氧化剂	48mL	室温，避光
临用前，按 A1:A2=1:24 混合，即为红氨酸染色液，即配即用。			
试剂(B): 核固红染色液		50mL	室温，避光

产品介绍：

铜在人体内含量极少，采用一般的组织学方法检测不到。肝脏中的铜较多，当肝豆状核变性或肝硬化时，铜含量明显增加。红氨酸法原理在于红氨酸与铜盐反应生成红氨酸-二亚胺(二硫乙二胺红氨酸)型铜盐沉淀，呈黑绿色。

自备材料：

10%中性福尔马林固定液、系列乙醇、蒸馏水、恒温箱或水浴锅

操作步骤：(*仅供参考*)

试剂(B): 核固红染色液可能会由于絮凝产生悬浮物或少量沉淀，建议取上清使用或沸水浴 5-10min 后晾至 30-40℃使用。（见注意事项 2）

1. 组织固定于 10%中性福尔马林，常规脱水包埋，切片厚度 5μm，常规脱蜡至水。
2. 受检切片和阳性对照片入蒸馏水。
3. 切片入红氨酸染色液，37℃水浴染色 16h～48h(见注意事项 2)。
4. 70%乙醇冲洗，蒸馏水稍洗。
5. 晾干并吸干切片上的水分。
6. 核固红染色液染色 1min 或更短时间，蒸馏水冲洗。
7. 常规脱水透明，中性树胶封固。

染色结果：

铜盐	墨绿色
细胞核	淡红色

阴性对照：

如有必要，正常组织切片可做阴性对照。

注意事项：

1. 铜盐组织固定选择固定剂很重要，以中性福尔马林为佳，避免采用 Bouin 液等酸性固定液和含有汞或铬盐的固定剂。
2. 试剂(B): 核固红染色液为胶体性质溶液，低温（低于 25℃）保存或长期储存由于絮凝产生悬浮物或少量沉淀，属于正常现象，一般不影响使用。如移液器吸取观察到明显浑浊，可拧紧瓶盖沸水浴 5-10min 重新制备分散均匀的胶体溶液来恢复使用。
3. 该染色液最好在恒温控制的水浴条件下进行。
4. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Copper Salt Stain Kit (Dithiooxamide Method)

Cat: G3040
Size: 2×50mL
Storage: RT, avoid light, valid for 6 months.

Kit Components

Reagent		2×50mL	Storage
Reagent (A): Dithiooxamide Staining Solution	Reagent (A1):Dithiooxamide Solution	2mL	RT, avoid light
	Reagent (A2): Dith Oxidant	48mL	RT, avoid light
Before use, mix A1with A2 as the radio of 1:24 to form Dithiooxamide Staining Solution. It is ready to use.			
Reagent (B): Nuclear Fast Red Solution		50mL	RT, avoid light

Introduction

The content of copper in human body is very little, which can not be detected by general histological methods. There is more copper in the liver. When hepatolenticular degeneration or cirrhosis occurs, the copper content increases obviously. The principle of Copper Salt Stain Kit (Dithiooxamide Method) is that dithiooxamide reacts with the copper salt to form dithiooxamide-diimine(ethylenediamine disulfide dithiooxamide) copper salt precipitation, which is black green.

Self Provided Materials

10% neutral formalin fixative, Series of ethanol, Distilled water, Thermostatic incubator or Water bath

Protocol(*for reference only*)

Reagent (B): Nuclear Fast Red Solution may produce suspended solids or a small amount of precipitation due to flocculation. It is recommended to take supernatant or boil water bath for 5-10min and then air it to 30-40 ℃. (see Note 2)

1. Fix the tissue in 10% neutral formalin fixative, conventionally dehydrate and embed, cut the section in 5 μm thick, conventionally dewax to water.
2. Soak the tested section and positive control section in distilled water.
3. Stain with Dithiooxamide Staining Solution at 37 ℃ water bath for 16h-48h (see Note 2).
4. Rinse with 70% ethanol and slightly wash with distilled water.
5. Dry and absorb the water on the section.
6. Stain with Nuclear Fast Red Solution for 1 min or less time and wash with distilled water.
7. Conventionally dehydrate and transparent, seal with resinene.

Result

Copper Salt	Blackish Green
Nucleus	Light Red

Negative Control

If necessary,healthy tissue section can take negative control.

Note

1. It is very important to choose fixative for the fixation of copper salt. Neutral formalin is the best choice, and avoid using acid fixative such as Bouin solution and fixative containing mercury or chromium salt.
2. Reagent (B): Nuclear Fast Red Solution is a colloidal solution, which is stored at low temperature (lower than 25 ℃) or stored for a long time. Suspended solids or a small amount of precipitation are generated due to flocculation, which is a normal phenomenon and generally does not affect the use. If the colloid solution is evenly dispersed in the boiling bath, tighten the bottle cap for 5-10min to recover the turbid solution.
3. The solution is preferably to stain in a thermostatic water bath.
4. For your safety and health, please wear experimental clothes and disposable gloves.