过氧化物酶染色试剂盒(氧化 WG-KI 法)

货号： G2371
规格： 2×10mL/2×20mL
保存： 室温，避光保存，有效期 6 个月。

产品组成：

名称		2×10mL	2×20mL	保存
试剂(A): WG-KI 固定液		10mL	20mL	室温，避光
试剂(B): 氧化 WG-KI 染色液	B1: WG 染色液	1.9mL	3.8mL	室温，避光
	B2: KI 染色液	0.75mL	1.5mL	室温，避光
	B3: WG-KI 缓冲液	7.5mL	15mL	室温
临用前，按 B1:B2:B3=5:2:20 比例混合，即氧化 WG-KI 染色液，即配即用。				

产品介绍：

过氧化物酶(Peroxidase，简称 POX 或 MPO)是由微生物或植物所产生的一类能催化很多反应的以过氧化氢为电子受体催化底物氧化的氧化还原酶，主要存在于细胞的过氧化物酶体中，以铁卟啉为辅基，可催化过氧化氢氧化酚类和胺类化合物，具有消除过氧化氢和酚类、胺类毒性的双重作用。

过氧化物酶染色液(氧化 WG-KI 法)是经改良后的 Pereira POX 染色法，该染液可用于血液、骨髓或细胞涂片过氧化物酶染色, POX 活性部位呈棕红色至蓝黑色颗粒，定位于细胞质中。

操作步骤：(*仅供参考*)

1、 血液、骨髓涂片干燥后，滴加 WG-KI 固定液布满血膜，固定 30s。
2、 稍水洗，晾干或滤纸吸干。
3、 滴加氧化 WG-KI 染色液，染色 40-60s。
4、 弃染色液，滤纸吸干。镜检。

染色结果：

阳性反应	棕红色至蓝黑色颗粒
阴性反应	胞质呈蓝色
细胞核	淡蓝色或淡紫红色

粒细胞系除早期原粒细胞阴性外，分化好的原粒细胞以下阶段细胞随细胞成熟而阳性反应增强，衰老中性粒细胞反应程度减弱，单核细胞系弱阳性，淋巴细胞系为阴性。浆细胞及巨核细胞均为阴性。嗜酸性粒细胞和 Auer 小体呈强阳性反应。

阳性反应强度的判断：

阴性	无颗粒
弱阳性	颗粒小，分布稀疏
阳性	颗粒略粗，分布密集
强阳性	颗粒粗大，呈蓝黑色，充满胞浆

临床意义：

1、 急性粒细胞白血病晚期的原粒细胞呈阳性，颗粒较少且大。
2、 急性单核白血病细胞呈阴性或弱阳性，颗粒小且稀疏。
3、 单核急性白血病呈阴性或弱阳性。
4、 急性早幼粒白血病呈强阳性，某些早幼粒细胞呈阳性，恶性组织细胞呈阴性。
5、 急性淋巴细胞白血病呈阴性。

注意事项：

1、 血液或骨髓涂片应新鲜，薄厚适宜，及时固定，否则会影响酶的活性。
2、 POX 孵育液易失效或降低阳性强度，即配即用，不宜久置。

3、 细胞较多或阳性反应较弱时，可适当延长染色时间，但一般不宜超过 3min。AML-M3 细胞染色时，应适当缩短染色时间。
4、 每次染色时，应采取健康人末梢血或骨髓涂片作为阴性对照。
5、 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Peroxidase Stain Kit(WG-KI Oxidation Method）

Cat: G2371
Size: 2×10mL/2×20mL
Storage: RT, avoid light, valid for 6 months.

Kit Components

Reagent		2×10mL	2×20mL	Storage
Reagent(A): WG-KI Fixative		10mL	20mL	RT, avoid light
Reagent(B): Oxidized WG-KI Solution	B1: WG Solution	1.9mL	3.8mL	RT, avoid light
	B2: KI Solution	0.75mL	1.5mL	RT, avoid light
	B3: WG-KI Buffer	7.5mLl	15mL	RT
Before use, mix B1, B1 and B3 as the radio of 5:2:20 to form Oxidized WG-KI Solution. It is ready to use.				

Introduction

Peroxidase (POX or MPO) is a kind of oxidoreductase produced by microorganisms or plants, which can catalyze many reactions and catalyze the oxidation of the substrate with hydrogen peroxide as the electron acceptor. It mainly exists in the peroxisome of cells. With iron porphyrin as the auxiliary group, it can catalyze the oxidation of phenols and amines by hydrogen peroxide. It has double effects of eliminating the hydrogen peroxide, phenols and amines toxicity.

Peroxidase Stain Kit(WG-KI Oxidation Method) is a modified Pereira POX staining method, which can be used for peroxidase staining of blood, bone marrow or cell smear. The active part of pox is brownish red to blue black particles, which are located in the cytoplasm.

Protocol(*for reference only*)

1. After the blood and bone marrow smears are dried, drop WG-KI Fixative to cover the blood membrane and fix for 30s.
2. Wash slightly with water, dry in air or absorb the excess solution with filter paper.
3. Add Oxidized WG-KI Solution and dye for 40-60s.
4. Discard the solution and absorb the excess with filter paper.View under the microscope.

Result

Positive Reaction	Brownish Red to Blue Black particles
Negative Reaction	The cytoplasm is blue
Nucleus	Light Blue or Light Purplish Red

In addition to the early neutrophil negative, the positive reaction increases with the maturation of the well-differentiated cells in the following stages, while the senescent neutrophils decreases, monocyte is weak positive and lymphocyte is negative. Plasma cells and megakaryocytes are negative. Eosinophils and Auer bodies show strong positive reaction.

Judgment of positive reaction intensity

Negative	No particle
Weakly Positive	Small particles with sparse distribution
Positive	Coarse particles with dense distribution
Strongly Positive	The particles are coarse, blue black and full of cytoplasm.

Clinical significance

1. In the late stage of acute myeloid leukemia, there are few and large granules.
2. Acute monocytic leukemia cells are negative or weakly positive, there are small and sparse granules.
3. Monocytic acute leukemia is negative or weakly positive.
4. Acute promyelocytic leukemia is strongly positive, some promyelocytes are positive, and malignant cells are negative.
5. Acute lymphocytic leukemia is negative.

Note

1. Blood or bone marrow smear should be fresh, thin and appropriate, fix in time, otherwise it will affect enzyme activity.
2. POX Incubation Solution is easy to lose efficacy or reduce the positive intensity. It is ready to use and not stored for long time.
3. When there are many cells or the positive reaction is weak, the staining time can be appropriately prolonged, but generally it should not be more than 3 minutes. The staining time of AML-M3 cells should be shortened properly.
4. For every staining, the smear of peripheral blood or bone marrow should be taken as negative control.
5. For your safety and health, please wear experimental clothes and disposable gloves.