

MCLA (Chemiluminescent Probe) 超氧化物化学发光探针

产品编号	产品名称	包装规格
NBS5987-1mg	MCLA (Chemiluminescent Probe) 超氧化物化学发光探针	1mg
NBS5987-5mg	MCLA (Chemiluminescent Probe) 超氧化物化学发光探针	5mg

产品简介:

MCLA, 又称为 6-(4-Methoxyphenyl)-2-methyl-3,7-dihydroimidazo[1,2-a]pyrazin-3(7H)-one hydrochloride, 能够与超氧化物阴离子 (O_2^-) 或单线态氧 (1O_2) 反应产生化学发光。MCLA 与超氧化物可逆反应形成一加合物, 该加合物的不可逆衰变产生冷光 ($\sim 465\text{nm}$), 此反应表观速率常数是 $\sim 10^5\text{M}^{-1}\text{s}^{-1}$ 。MCLA 化学发光是灵敏的超氧化物检测手段, 最显著的应用是白细胞功能研究。

产品特性:

- 1) CAS NO.: 162558-52-3
- 2) 同义名: 2-Methyl-6-(4-methoxyphenyl)-3,7-dihydroimidazo[1,2-a]pyrazin-3(7H)-one hydrochloride, 6-(4-Methoxyphenyl)-2-methyl-3,7-dihydroimidazo[1,2-a]pyrazin-3(7H)-one hydrochloride, Cypridina Luciferin methoxy-analogue, MCLA
- 3) 分子式: $C_{14}H_{13}N_3O_2 \cdot HCl$
- 4) 分子量: 291.73
- 5) 纯度: $\geq 98.0\%$
- 6) Emmax: $\sim 465\text{ nm}$ (Chemiluminescence: in 0.1 M Tris pH 8.5; after addition of H_2O_2)
- 7) 外观: 白色至浅黄色固体
- 8) 溶解性: 溶于水, DMSO, DMF

保存条件:

20°C 避光干燥保存, 至少 1 年有效。

产品使用：(仅供参考)

Prepare reaction buffer: 5 μ M MCLA + buffer

Buffer examples:

for Cytochrome C: 50 mM Tris-Cl, pH 7.8, 0.1 mM EDTA, 7 mM sodium succinate .

for mitochondria proteins: 125 mM KCl, 10 mM HEPES, 5 mM MgCl₂, 2 mM K₂HPO₄

Conduct reaction in 100 μ l of reaction buffer - Light emission is detected and quantified using a microplate luminometer with opaque (white) 96-well plates. The photomultiplier can be set to default with an integration time of 1000 ms. The MCLA signal is quantified as an integral of 20 s to 60 s of continuous measurement. - A positive control can be prepared with the xanthine/xanthine oxidase system: 1 mM xanthine + 0.1 unit/ml xanthine oxidase causes a ~100-fold increase in chemiluminescent signal as compared with xanthine or xanthine oxidase alone, which did not differ significantly from reaction buffer alone. Addition of SOD (CuZn-SOD from erythrocytes) decreases the MCLA signal by over 98%.

注意事项：

1. 为了您的安全和健康，请穿实验服并戴一次性手套操作。

本产品仅用于生命科学研究，不得用于医学诊断及其它用途！