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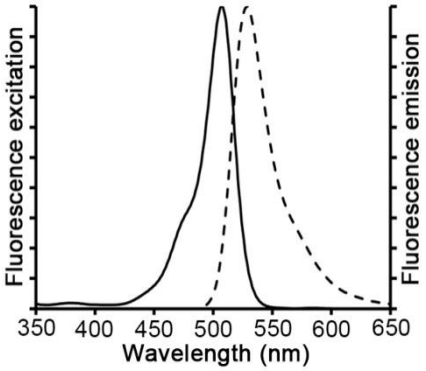
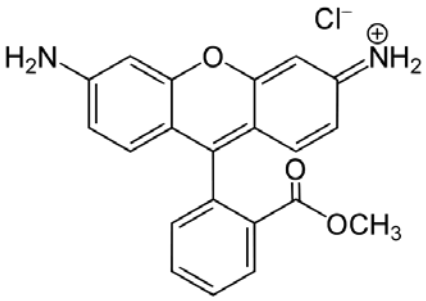
Rhodamine 123

产品编号	产品名称	包装
C2007	Rhodamine 123	5mg

产品简介：

- Rhodamine 123也称2-(6-Amino-3-imino-3H-xanthen-9-yl)benzoic acid methyl ester，中文名为罗丹明123，分子式为$C_{21}H_{17}ClN_2O_3$，分子量为380.82，CAS Number 62669-70-9，纯度>95%。
- Rhodamine 123是一种可以通透细胞膜的选择性染色活细胞线粒体的阳离子黄绿色荧光染料，广泛用作检测线粒体膜电位(mitochondrial membrane potential)的荧光探针，也常用于细胞凋亡检测。在正常细胞中，Rhodamine 123能够依赖线粒体跨膜电位(mitochondrial transmembrane potential，ΔΨm)选择性进入线粒体基质，可发出明亮的黄绿色荧光；当细胞发生凋亡或坏死时，线粒体膜电位丢失，线粒体通透性转换孔(mitochondrial permeability transition pore, MPTP)持续开放，引起线粒体跨膜电位(ΔΨm)的崩溃，Rhodamine 123从线粒体中释放出来，从而导致线粒体内黄绿色荧光强度的明显降低。此外有报道，在个别特定情况下，Rhodamine 123探针在线粒体内过度聚集后可能会出现自发淬灭(self-quenching)现象，线粒体内黄绿色荧光强度降低，而在凋亡发生时，线粒体中黄绿色荧光增强。使用本产品，按照说明中推荐的实验条件，对于实际测试过的细胞仅观察到了凋亡或坏死时Rhodamine 123的荧光染色减弱或消失的现象。本产品染色后，可用荧光显微镜、流式细胞仪或其它荧光检测设备检测，通过荧光信号的强弱来确定线粒体膜电位的变化和凋亡的发生。
- Rhodamine 123可以快速通过细胞膜，仅需几分钟就可以被具有活性的线粒体所俘获(sequestered by active mitochondria)，并且对细胞没有任何毒性。
- Rhodamine 123的激发光谱和发射光谱参考下图，最大激发波长为507nm，最大发射波长为529nm。在荧光显微镜下观察，呈现黄绿色荧光。





- Rhodamine 123为红棕色粉末，溶于DMSO，也溶于乙醇，在乙醇中的溶解度可达20mg/ml。

包装清单：

产品编号	产品名称	包装
C2007	Rhodamine 123	5mg
—	说明书	1份

保存条件：

室温避光保存，两年有效。溶于DMSO配制成母液后-20°C保存。

注意事项：

- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

使用说明：

可以先配制1-5mM的母液。使用时通常使Rhodamine 123的终浓度为1-2μM即可。详细的使用方法请参考相关文献资料。

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