DiD 细胞膜荧光探针红色；DiD Perchlorate

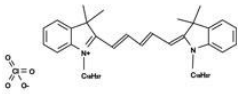
产品编号： MB6190

质量标准： ＞95%

包装规格： 10MG

产品形式： solid

基本信息

分子式	C61H99ClN2O4	结构式	
分子量	959.91		
CAS No.	V		
储存条件	-20℃，避光防潮密闭干燥		
溶解性 (25°C)	溶于 DMSO		
注意事项	溶解性是在室温下测定的，如果温度过低，可能会影响其溶解性。		
其他说明	为了您的安全和健康，请穿实验服并戴一次性手套操作。		

简介：染料 DiI, DiO, DiD 和 DiR 是一类亲脂性荧光染料家族，用于标记细胞膜和疏水性组织。这是一类环境敏感型荧光染料，当它们与膜结合或者与亲脂性生物分子(例如蛋白质，虽然在水中其荧光强度很弱)结合时，其荧光强度显著增强。它们具有很高的淬灭系数，偏光依赖性和很短的激发寿命。一旦应用于细胞中，这种染料会在细胞内质膜中逐步扩散，导致在其最佳浓度条件下，将整个细胞染色。它们不同的荧光颜色：DiI（橙色荧光）、DiO（绿色荧光）、DiD（红色荧光）、DiR（深红色荧光），为活细胞多色彩荧光成像分析和流式细胞术提供了一种便捷的工具。DiO 和 DiI 可以分别与标准的 FITC 和 TRITC 滤光器一同使用。其中，DiO 可以被 633 nm He-Ne 激光激发，并且具有比 DiI 更长的激发和发射光波长，为标记细胞和组织的那些本身就具有本底荧光的染料提供了非常卓越的替代品。DiR 在活体成像或者示踪中非常有用，因为它们所发射的红外光可以高效地穿过细胞和组织，并且在红外光范围内，其本底荧光水平很低。

物理性状及指标：

外观：……红色或紫色或深蓝色固体

溶解性：……溶于 DMSO

Ex (nm) ：……644

Em (nm)：……663

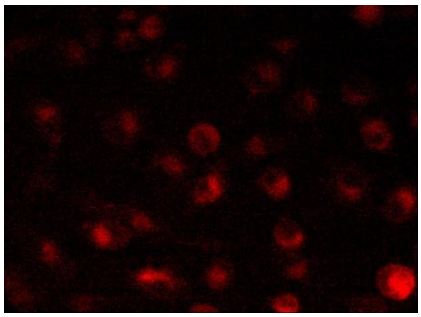
储存条件：-20℃，避光防潮密闭干燥

产品应用标准实测（由美仑细胞生物学项目组独立完成）

本品配成 5mM 溶液后为深蓝色液体溶液澄清度且颜色检测无可见异物；然后进行荧光染色检测

工作条件：荧光显微镜，C6 细胞，400×，工作浓度 5μM

经细胞膜荧光染色，在 40 倍物镜下可看到清晰荧光。此浓度下在荧光显微镜下看到的荧光亮度亦足以用于共聚焦检测。



相关产品推荐

MB4240	DiI 细胞膜荧光探针橙红色
MB4239	DiO 细胞膜荧光探针绿色
MB12482	DiR 细胞膜荧光探针深红色;DiR 碘化物

操作说明仅供参考

1.Prepare DiO, DiI DiD, DiS or DiR membrane stain solutions:

1.1Prepare DMSO or EtOH stock solutions: The stock solutions should be prepared in DMSO or EtOH at 1-5 mM.
Note: The unused portion of the stock solution should be stored at -20 oC. Avoid repeated freeze/thaw cycles.
1.2Prepare working solutions: Dilute the stock solutions (from Step 1.1) into a suitable buffer such as serum-free culturemedium, HBSS or PBS to make 1 to 5 uM working solutions.
Note: The final concentration of the working solution should be empirically determined for different cell types and/or experimental conditions. It is recommended to test at the concentrations that are at least over a tenfold range.

2.Stain the cells in suspension:

2.1Suspend cells at a density of 1 × 106/mL in dye working solution (from Step 1.2).
2.2Incubate at 37 °C for 2–20 minutes. The optimal incubation time varies depending on the cell type. Start by incubating for 20 minutes and subsequently optimize as necessary to obtain uniform labeling.
2.3Centrifuge the labeled suspension tubes at 1000 to 1500 rpm for 5 minutes.
2.4Remove the supernatant and gently resuspend the cells in pre-warmed (37 °C) growth medium.
2.5Wash two more times as Steps 2.3 and 2.4.

3.Stain adherent cells:

3.1Grow adherent cells on sterile glass coverslips.
3.2Remove coverslips from growth medium and gently drain off excess medium. Place coverslip in a humidity chamber.
3.3Pipet 100 µL of the dye working solution (from Step 1.2) onto the corner of a coverslip and gently agitate until all cells are covered.
3.4Incubate the coverslip at 37 °C for 2–20 minutes. The optimal incubation time varies depending on the cell type. Start by incubating for 20 minutes and subsequently optimize as necessary to obtain uniform labeling.
3.5Drain off the dye working solution and wash the coverslips two to three times with growth medium. For each wash cycle, cover the cells with pre-warmed growth medium, incubate for 5-10 minutes and then drain off the medium.

4.Microscopy Detection:

4.1The selection of DiD, DiO, DiI, DiS and DiR's filter sets is summarized in Table 1.
4.2For simultaneous detection of multiple dyes, multiband filter sets are available as follows:
a)DiI and DiO = Omega XF52, Chroma 51004
b)DiI and DiD = Omega XF92, Chroma 51007
c)DiI, DiO and DiD = Omega XF93, Chroma 61005

5.Flow Cytometry Detection:

DiO, DiI, DiD, DiR stained cells can be detected by classical FL1, FL2, FL3 and FL4 flow cytometry, respectively.

【注意】

●我司产品为非无菌包装，若用于细胞培养，请提前做预处理，除去热原细菌，否则会导致染菌。

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