

Product name: CM-DiD Membrane Probe (Red)

Product number: RA20008

Basic Information

Product Name	CM-DiD Membrane Probe (Red)
Size	200 µL
Storage	Store at 4 °C, away from light
Shipping	Shipped with ice pack
Validity	12 months
Ex/Em	644/663 nm

Product Introduction

CM-DiD Membrane Probe (Red) is a lipophilic cyanine dye that can effectively and stably label plasma membranes and intracellular membrane structures. It has low cytotoxicity and does not transfer between cells, making it a common tracer molecule for cell fusion, adhesion, and migration. Compared with PKH dyes, CM-DiD is easy to use and provides uniform staining. DiI (orange fluorescence), DiO (green fluorescence), DiD (red fluorescence), and other cell membrane fluorescent dyes such as DiR (near-infrared fluorescence) and NIR680 (far-infrared dye) can be used together to provide effective tools for multicolor imaging and flow cytometry analysis.

CM-DiD dye can also be used for staining cells after formaldehyde fixation and is compatible with the formaldehyde fixation step after staining. This dye is not suitable for bacteria or yeast.

Experimental procedures

The volume of working solution should be optimized according to different cell lines and experimental systems. It is recommended to start exploring the optimal conditions from 10 times the recommended volume.

Suspension cell staining

- (1) Add an appropriate volume of staining working solution to resuspend the cells to a density of 1×10^6 cells/mL, and then add the staining stock solution at a ratio of 1:200.
- (2) Incubate the cells at 37°C for 2 to 20 minutes. Different cells have different optimal culture times. You can use 20 minutes as the initial incubation time and then optimize the system.
- (3) After incubation, centrifuge at 1000-1500 rpm for 5 min. Pour off the supernatant and slowly add 37°C preheated culture medium to resuspend the cells. Repeat twice.

Adherent cell staining

- (1) Prepare the staining working solution: add 5 µL of the staining stock solution to every 1 mL of culture medium and vortex to mix.
- (2) Culture the adherent cells on a sterile coverslip. After the culture is completed, remove the coverslip and aspirate away excess culture medium, but keep the surface moist.
- (3) Add 100 µL of dye working solution to one corner of the coverslip and gently shake to allow the dye to evenly cover all cells.
- (4) Incubate the cells at 37°C for 2 to 20 minutes. The optimal incubation time varies for different cells. You can use 20 minutes as the initial incubation time, and then optimize the system to obtain a uniform labeling effect.
- (5) Aspirate the dye working solution, wash the coverslip 2-3 times with culture medium, cover all cells with pre-warmed culture medium each time, incubate for 5-10 min, and then aspirate the culture medium. However, keep the surface moist.

Note: This reagent is for scientific research use only!