Cell membrane orange red fluorescent probe(Dil)

C598349

Storage 2-8℃. Protect from light. Do not freeze.
Shipping Shipped with wet ice.

Introduction

Aladdin cell membrane orange red fluorescent probe (DII) is a lipophilic carbocyanine dye, which can effectively and stably label the plasma membrane and intracellular membrane structures. It has the characteristics of low cytotoxicity and will not transfer between cells. It is often used as a tracer molecule for cell fusion, adhesion and migration. Compared with PKH dyes, cytombrite dyes are convenient to use and evenly colored. 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), provide effective tools for multicolor imaging and flow cytometry analysis. Cytombrite series dyes can also be used for the staining of cells after formaldehyde fixation, and are compatible with the formaldehyde fixation step after staining. This series of dyes is not suitable for bacteria or yeast. At 100 per use μL dyeing working solution calculation, 200 μL stock solution can be used for 400 times.

Product parameters

Ex/em (MeOH) = 549/565 nm molecular formula: c59h97cln2o4 molecular weight: 933.9

Matters needing attention

1. Before use, centrifuge the product to the bottom of the tube in time, and then conduct subsequent tests.
2. Fluorescent dyes have quenching problems. Please try to avoid light to slow down fluorescence quenching.
3. For your safety and health, please wear experimental clothes and disposable gloves.

Scope of application

Cell membrane dye.

Product Features

Low toxicity: It has low cytotoxicity and will not transfer between cells;
Good stability: strong fluorescence brightness, uniform coloring, and suitable for cell tracking, which can work well inside cells The reservation;
Strong compatibility: Dyeing can be performed before and after formaldehyde fixation.
Spectral diagram:

Bring your own materials

1. Consumables

(1) Centrifuge tube (2) cover glass

2. Reagents

(1) Serum free medium or HBSS or PBS

(2) Medium (pre warmed)

3. Instruments

Fluorescence microscope or flow cytometer.

Operating steps

It is recommended to optimize the volume of working fluid according to different cell lines and experimental systems. Suggest starting to explore the optimal conditions within the range of 1010 times the recommended quantity.

1. Suspension cell staining

(1) Add an appropriate volume of culture medium to resuspend the cells to a density of 1 × 106/mL, and then add the staining solution in a ratio of 1:200.

(2) Incubate cells at 37 ℃ for 2-20 minutes, and the optimal culture time varies for different cells. A starting incubation time of 20 minutes can be used to optimize the system afterwards.

(3) Centrifuge at 1000~1500 rpm for 5 minutes. Pour the supernatant and slowly add the culture medium preheated at 37 ℃ again to resuspend the cells. Repeat twice.

2. Staining of adherent cells

(1) Preparation of staining solution: Add 5 μ L of staining solution to every 1 mL of culture medium, vortex and mix well.

(2) Cultivate the adherent cells on sterile cover glass, remove the cover glass after cultivation, absorb excess culture medium, but keep the surface moist.

(3) Add 100 μ L of staining solution to one corner of the cover glass and gently shake to evenly cover all cells with the dye.

(4) Incubate cells at 37 ℃ for 2-20 minutes, and the optimal culture time varies for different cells. 20 minutes can be used as the starting incubation time, and then the system can be optimized to achieve uniform labeling effect.

(5) Absorb the dye working solution, wash the cover glass with culture medium 2-3 times, cover all cells with preheated culture medium each time, incubate for 5-10 minutes, and then absorb the culture medium. But keep the surface moist.

3. Result detection

The sample can be detected in the culture medium and analyzed by fluorescence microscopy imaging or flow cytometry.

Note: Yellow light excitation, Cy3 filter can be selected as the fluorescence microscope filter; Select YL1 channel for flow cytometry.