USER GUIDE

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**Version 2.0**

# 细胞增殖示踪荧光探针

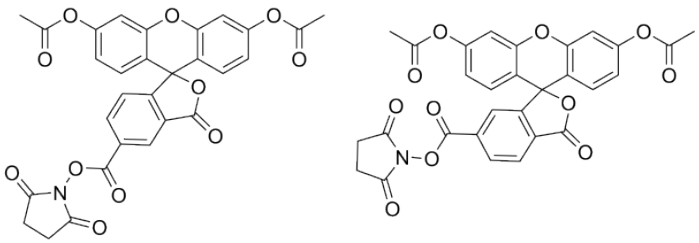
# CFDA-SE ≥99%

**Do not eat Store at -20° C & in the dark**

Cat.No.MF4466 Size : 10mg

CAS : 150347-59-4
Molecular Weight : 557.46
Molecular Formula : $C_{29}H_{19}NO_{11}$
Synonyms : 5(6)-羧基二乙酸荧光素琥珀酰亚胺酯,
5(6)-Carboxyfluorescein diacetate succinimidyl ester; 5(6)-CFDA N-succinmidyl ester
Ex=495 nm,Em=519nm
Solubility: ≥ 37.2mg/mL in DMSO with ultrasonic

Technical literature is available at: www.mesgenbio.com
E-mail MesGen Technical Services if you have questions on use of this system: tech@mesgenbio.com



A fluorescent dye used to assess cell proliferation

## Description

CFSE is a fluorescent dye that can penetrate the cell membrane. It can react with the free amine group in the cytoskeleton protein inside the cell, and finally form a protein complex with fluorescence. After entering the cell, CFSE locates in the cell membrane, cytoplasm and nucleus, and the fluorescence staining is strongest in the nucleus. CFSE dye can be uniformly inherited by the cells with cell division and proliferation, and its attenuation is proportional to the number of cell divisions. This phenomenon can be detected and analyzed by flow cytometry under the excitation light of 495nm, and can be used to detect the proliferation of cells.

## In Vitro Research

Preparation of CFSE working solution

1.1 Preparation of the stock solution Dissolve 1 mg of CFSE in 0.1794 mL of DMSO to obtain 10 mM of CFSE. Note: It is recommended to store the stock solution at -20°C or -80°C away from light and avoid repetitive freeze-thaw cycles.

1.2 Preparation of CFSE working solution Dilute the stock solution in serum-free cell culture medium or PBS to obtain 5-10 μM of CFSE working solution. Note: Please adjust the concentration of CFSE working solution according to the actual situation.

Cell staining

2.1 For suspension cells: Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time. For adherent cells: Discard the cell culture medium, and add trypsin to dissociate cells to make a single-cell suspension. Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time.

2.2 Add 1 mL of CFSE working solution, and then incubate at room temperature for 30 minutes.

2.3 Centrifuge at 400 g at 4°C for 3-4 minutes and then discard the supernatant.

2.4 Wash twice with PBS, 5 minutes each time.

2.5 Resuspend cells with serum-free cell culture medium or PBS, and then detect by fluorescence microscope or flow cytometer.

## Storage condition

-20°C, protect from light

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