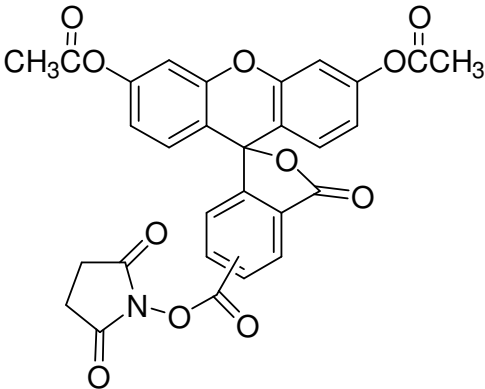


Instruction Manual

Catalog Number	PK-CA707-90041
Description	CFSE or 5(6)-CFDA, SE is a useful cell membrane-permeable fluorescent tracer that can passively diffuse into viable cells and readily accumulates there, where it covalently attaches to intracellular proteins. Hydrolyzed CFSE emits fluorescence and covalently-attached fluorescein molecules seldom leak from cells, resulting in long-term cell labeling. The reagent itself is colorless and nonfluorescent, but fluoresces brightly green once it is hydrolyzed by intracellular esterases. The labeling has been shown to be stable for formaldehyde or glutaldehyde fixation conditions. CFSE-labeled cells can be monitored over several weeks in vivo. Therefore, CFSE is utilized for viable cell detection as well as for the long-term observation of cell activities by fluorescent microscopy. The excitation and emission wavelengths of CFSE-labeled cells are 495 nm and 519 nm, respectively.
Quantity	25 mg
Excitation / Emission Maxima	λ_{exc} \ λ_{em} : 495/519 nm (of hydrolysis product at pH 7.0)
Molecular Structure	
Molecular Weight / Molecular Formula	557 Da; C ₂₉ H ₁₉ NO ₁₁
Purity	>98% (as determined by TLC)
Appearance / Formulation / Solubility	White solid; soluble in DMSO or DMF.
Storage & Stability	Store desiccated at -20°C. Protect from light, especially when in solution.
Applications	<p>General Staining Procedure:</p> <ol style="list-style-type: none"> 1. Prepare 1 mM CFSE solution with DMSO. Dilute it to prepare 10-50 μM CFSE solution with PBS or an appropriate buffer. 2. Add CFSE solution with 1/10 of the volume of cell culture medium to the cell culture. 3. Incubate the cell at 37 °C for 15 to 30 minutes. 4. Wash cells twice with PBS or an appropriate buffer. 5. Observe the cells using a fluorescence microscope with 490 nm excitation and 530 nm emission filters.
References	<ol style="list-style-type: none"> 1) J. Cell Biol. 101, 610(1985); 2) J. Cell Biol. 103, 2649(1986); 3) Cell Transplantation 3, 397(1994)
Caution	Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

FOR IN VITRO RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC PROCEDURES.