



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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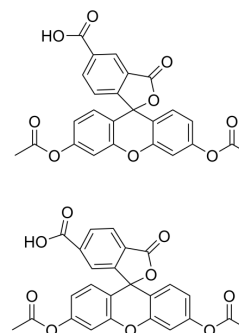
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## 5(6)-CFDA

Cat. No.:	HY-D0722
CAS No.:	124387-19-5
Molecular Formula:	C <sub>25</sub> H <sub>16</sub> O <sub>9</sub>
Molecular Weight:	460.39
Target:	Fluorescent Dye
Pathway:	Others
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (271.51 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	2.1721 mL	10.8604 mL	21.7207 mL
				5 mM	0.4344 mL	2.1721 mL	4.3441 mL
				10 mM	0.2172 mL	1.0860 mL	2.1721 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.52 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.52 mM); Clear solution						

### BIOLOGICAL ACTIVITY

Description	5(6)-CFDA is a common aliphatic luciferin-line organism. CFDA conducts free diffusion into cells, and then it is hydrolyzed into carboxyl fluorescein (CF) by intracellular non-specific lipase. CF containing portion contains an additional negative charge so that it is better retained in cells, compared to fluorescein dyes <sup>[1][2][3]</sup> .
In Vitro	<p>Preparation of 5(6)-CFDA working solution</p> <p>1. Preparation of the stock solution Dissolve 1mg 5(6)-CFDA in 0.21 mL DMSO to obtain 10 mM of 5(6)-CFDA. Note: It is recommended to store the stock solution at -20°C -80°C away from light and avoid repetitive freeze-thaw cycles.</p> <p>2. Preparation of 5(6)-CFDA working solution Dilute the stock solution in serum-free cell culture medium or PBS to obtain 1-10 μM of 5(6)-CFDA working solution. Note: Please adjust the concentration of 5(6)-CFDA working solution according to the actual situation.</p>

#### Cell staining

##### 1. Cell preparation:

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. Add 1 mL of 5(6)-CFDA working solution, and then incubate at room temperature for 30 minutes.

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

4. Wash twice with PBS, 5 minutes each time.

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

#### Precautions

1. It is recommended to store the stock solution at -20°C or -80°C away from light and avoid repetitive freeze-thaw cycles.

2. Please adjust the concentration of 5(6)-CFDA working solution according to the actual situation.

3. This product is for R&D use only, not for drug, household, or other uses.

4. For your safety and health, please wear a lab coat and disposable gloves to operate.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Theranostics. 2020 Jul 11;10(20):8939-8956.
- Phytomedicine. 2020 Nov;78:153329.
- J Dairy Sci. 2022 Aug 2;S0022-0302(22)00429-5.
- Toxicol Lett. 2020 Jul 1;327:9-18.
- Microbiologyopen. 2022 Aug;168(8).

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## REFERENCES

- [1]. Yang T, et al. A novel nonradioactive CFDA assay to monitor the cellular immune response in myeloid leukemia. Immunobiology. 2013 Apr;218(4):548-53.
- [2]. Card SD, et al. Assessment of fluorescein-based fluorescent dyes for tracing Neotyphodium endophytes in planta. Mycologia. 2013 Jan-Feb;105(1):221-9.
- [3]. Fang X, et al. Bone marrow-derived endothelial progenitor cells are involved in aneurysm repair in rabbits. J Clin Neurosci. 2012 Sep;19(9):1283-6.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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