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Zuschläge

- Mindermengenzuschlag
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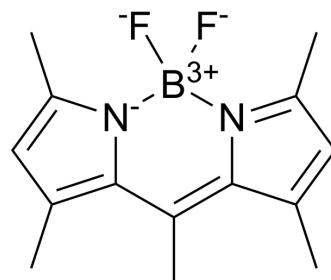
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BODIPY 493/503

Cat. No.:	HY-W090090
CAS No.:	121207-31-6
Molecular Formula:	C ₁₄ H ₁₇ BF ₂ N ₂
Molecular Weight:	262.11
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 1 year; -20°C, 6 months (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 5 mg/mL (19.08 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.8152 mL	19.0760 mL	38.1519 mL
	5 mM	0.7630 mL	3.8152 mL	7.6304 mL
	10 mM	0.3815 mL	1.9076 mL	3.8152 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

BODIPY493/503 is a BODIPY dye. BODIPY dye is a small molecule dye with strong ultraviolet absorption ability, its fluorescence peak is relatively sharp, and the quantum yield is high. They are relatively insensitive to the polarity and pH of the environment and are relatively stable under different physiological conditions. Due to its structural asymmetry, BODIPY derives a variety of structural products. BODIPY lipid droplet dyes can well pass through the cell membrane into the cell, and localize the polar lipids in the cell to specifically stain the lipid droplets, which can be used for labeling of live cells and fixed cells^[1]. Maximum excitation/emission wavelength: 493/503 nm^[1].

In Vitro

General Protocol

1. Preparation of BODIPY 493/503 working solution

1.1 Preparation of the stock solution

Dissolve 1 mg BODIPY 493/503 in 382 µL DMSO to obtain 10 mM of stock solution.

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

1.2 Preparation of BODIPY 493/503 working solution

Dilute the stock solution in serum-free cell culture medium or PBS to obtain 1-10 µM of working solution.

Note: Please adjust the concentration of BODIPY 493/503 working solution according to the actual situation.

2. Cell staining

2.1 Suspension cells (6-well plate)

- Centrifuge at 1000 g at 4°C for 3-5 min and then discard the supernatant. Wash twice with PBS, 5 min each time. The cell density is 1×10^6 /mL.
- Add 1 mL of working solution, and then incubate at room temperature for 5-30 min.
- Centrifuge at 400 g at 4°C for 3-4 min and then discard the supernatant.
- Wash twice with PBS, 5 min each time.
- Resuspend cells with serum-free cell culture medium or PBS. Observation by fluorescence microscopy or flow cytometry.

2.2 Adherent cells

- Culture adherent cells on sterile coverslips.
- Remove the coverslip from the medium and aspirate excess medium.
- Add 100 μ L of working solution, gently shake it to completely cover the cells, and then incubate at room temperature for 5-30 min.
- Wash twice with medium, 5 min each time. Observation by fluorescence microscopy or flow cytometry.

Storage

-20°C, 1 year; Protect from light.

Precautions

- Please adjust the concentration of BODIPY 493/503 working solution according to the actual situation.
- Experiments suggest a positive control, incubate the control group cells with 30 μ M oleic acid for 8 h and then perform subsequent experiments.
- This product is only for R&D use, not for drug, household, or others.
- 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

- Immunity. 2023 Sep 6;S1074-7613(23)00375-8.
- Nat Commun. 2023 Dec 21;14(1):8428.
- Metabolism. 2023 Apr 29;155579.
- Environ Res. 2024 Feb 2;249:118402.
- Mbio. 2024 Jan 23:e0319723.

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REFERENCES

- [1]. Bo Qiu, et al. BODIPY 493/503 Staining of Neutral Lipid Droplets for Microscopy and Quantification by Flow Cytometry. Bio Protoc. 2016 Sep 5;6(17):e1912.

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

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