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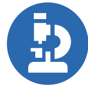
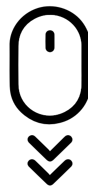
 Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

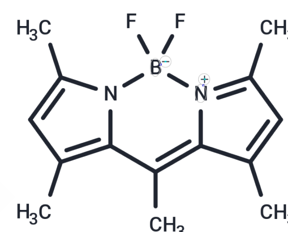
Data Sheet (Cat.No.T36957)

TargetMol

BODIPY 493/503

Chemical Properties

CAS No. :	121207-31-6
Formula:	C14H17BF2N2
Molecular Weight:	262.11
Appearance:	no data available
Storage:	keep away from direct sunlight Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	BODIPY 493/503 (Pyrromethene 546) is a lipophilic fluorescent probe with Ex/Em of 493/503 nm. BODIPY 493/503 localizes to polar lipids and can be used to label cellular neutral lipid contents and for live and fixed cell applications.
Targets(IC50)	Others
In vitro	**METHODS**: Flow cytometry was used to detect cellular lipid droplets: 1. BODIPY 493/503 is dissolved in 5 mM DMSO stock solution and diluted 1:2500 in PBS to a 2 μM working solution prior to use. 2. Cultivate cells under culture conditions relevant to the study, e.g. 50,000 A498 cells in 35 mm wells. Overnight incubation of cells with 30 μM oleic acid serves as a positive control for increased neutral lipid content. 3. At the time point of interest, prepare a 2 μM BODIPY staining solution in PBS. The volume of staining solution required for each sample corresponds to the volume of medium used to incubate the cells. 4. Rapidly rinse the cells with 3 mL of PBS to remove the medium/serum. Incubate in BODIPY Staining Solution for 15 min at 37°C in the dark. 5. Rapidly rinse the cells with 3 mL of PBS to remove the staining solution. Trypsinize the cells to produce a single-cell suspension. Add 5 mL of PBS and transfer the cell suspension to a 15 mL conical tube. 6. Centrifuge cells at 250×g for 5 min at 4°C. Remove the supernatant, quickly rinse the cell sediment with 3 mL of PBS, and centrifuge again, 250 × g, 5 min, 4°C. 7, Remove the supernatant and resuspend the cells in 300 μL of 1× flow cytometry buffer for flow cytometry assay. [1] **METHODS**: Fluorescent microscopy to detect cellular lipid droplets: 1. Dissolve BODIPY 493/503 into 1 mg/mL ethanol stock solution, and add 10 μL of 1 mg/ml BODIPY 492/503 stock solution to 10 mL of 150 mM NaCl to prepare a working solution before use. 2. One or two days before staining, culture the cells on sterile glass coverslips. Plate the cells at 50%-70% fusion to keep them semi-fused during staining. 3. To enhance lipid droplet formation and facilitate detection, supplement cell growth medium with 400 μM acid salt for 6-24 h prior to fixation and lipid droplet staining. 4. Rinse cells twice with 2 mL of PBS. Fix cells by incubating with 2 mL of 3% (w/v) paraformaldehyde for 30 min at room temperature. 5. Rinse the cells three times with 2 mL PBS. Cells were covered with 1 mL of BODIPY

	493/503 Working Solution and incubated for 10 min at room temperature, protected from ambient light. 6. Wash cells three times with 2 mL PBS. Mount coverslips onto slides using 20-40 μL of anti-fade mounting medium. 7, Detect BODIPY 493/503 staining of lipid droplets using fluorescence microscopy. [2]

Solubility Information

Solubility	DMF: Soluble Chloroform: Soluble Methanol: Soluble Ethanol: 0.24 mg/mL (908.38 uM) DMSO: 2 mg/mL (7.63 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8152 mL	19.076 mL	38.1519 mL
5 mM	0.763 mL	3.8152 mL	7.6304 mL
10 mM	0.3815 mL	1.9076 mL	3.8152 mL
50 mM	0.0763 mL	0.3815 mL	0.763 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Xiong Q, Sun H, Wang Y, et al.Lipid droplet accumulation in Wdr45-deficient cells caused by impairment of chaperone-mediated autophagic degradation of Fasn.Lipids in Health and Disease.2024, 23(1): 91.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481