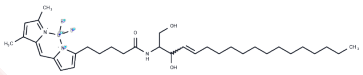
Data Sheet (Cat.No.T87517)

TargetMol

BODIPY FL C5-Ceramide

Chemical Properties



CAS No. : 133867-53-5

Formula: C34H54BF2N3O3

Molecular Weight: 601.62

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	BODIPY Fl C5-Ceramide is a Golgi-specific green fluorescent dye used to visualize individual cells, with excitation/emission wavelengths at 505 nm/512 nm. The Golgi fluorescent probe, a BODIPY-labeled ceramide derivative, is synthesized in the endoplasmic reticulum and transported to the Golgi via ceramide transport protein (CERT) or vesicular translocation, enabling specific labeling of the dye [1][2].
Targets(IC50)	Others
In vitro	Golgi working solution preparation involves initially creating a 5 mM stock solution using DMSO, which should be stored at -20°C or -80°C, protected from light, to avoid repeated freeze-thaw cycles. For working solution preparation, pre-warmed PBS or culture medium is utilized to make a 1-10 μM Golgi solution, adjusting the concentration as necessary and preparing fresh solutions for immediate use. For suspension cell staining, cells are collected by centrifugation at 1,000 g, 4°C for 3-5 minutes, with the supernatant discarded, followed by two washes with PBS, maintaining a cell density of 1×10^6/mL. Cells are then incubated with 1 mL of Golgi working solution at room temperature for 20-30 minutes, centrifuged at 400 g, 4°C for 3-4 minutes, with the supernatant discarded, and washed twice with PBS. Cells are resuspended in 1 mL serum-free medium or PBS for observation via fluorescence microscopy or flow cytometry. For adherent cell staining, cells are cultured on sterile cover slips, with excess medium removed before applying 100 μL of dye working solution, ensuring full cell coverage, and incubating for 20-30 minutes. The excess dye is removed, followed by two washes with medium, and observed using fluorescence microscopy or flow cytometry. Storage conditions require keeping the solution at -20°C, protected from light for up to a year. It is crucial to adjust the working solution concentration and incubation time based on the specific experimental conditions, use Hanks balanced salt solution if necessary during washing, and ensure the product is solely for scientific research by professional personnel, not used for clinical or therapeutic purposes, food, or drugs. Safety measures should include wearing lab coats and disposable gloves during handling. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6622 mL	8.3109 mL	16.6218 mL
5 mM	0.3324 mL	1.6622 mL	3.3244 mL
10 mM	0.1662 mL	0.8311 mL	1.6622 mL
50 mM	0.0332 mL	0.1662 mL	0.3324 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.