# BODIPY FL C5-Ceramide

**Cat. No.:** HY-D1612

**CAS No.:** 133867-53-5

**Molecular Formula:** $C_{34}H_{54}BF_2N_3O_3$

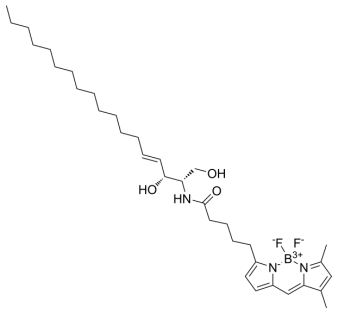
**Molecular Weight:** 601.62

**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 : 50 mg/mL (83.11 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 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 |

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

## BIOLOGICAL ACTIVITY

**Description**

The Golgi apparatus is composed of flattened vesicles superimposed on each other by unit membranes. The flattened vesicles are round with expanded and perforated edges. The Golgi fluorescent probe is a BODIPY-labeled ceramide derivative, the synthesis of which occurs in the endoplasmic reticulum and can then be transported to the Golgi via ceramide transport protein (CERT) or vesicular translocation, allowing specific labeling of the dye[1]. BODIPY Fl C5-Ceramide is a Golgi-specific green fluorescent dye, which can visualise individual cells[2]. Ex/Em= 505 nm/512 nm.

**In Vitro**

General Protocol

1 Preparation of Golgi working solution

1.1 Preparation of the stock solution

Dissolve Golgi in DMSO to obtain 5 mM of Golgi.

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

1.2 Preparation of Golgi working solution

Dilute the stock solution in HBSS to obtain 1-10 μM of Golgi working solution.

Note: Please adjust the concentration of Golgi working solution according to the actual situation.2 Cell staining

2.1 Suspension cells (6-well plate)

a.Centrifuge at 1000 g at 4°C for 3-5 minutes and then discard the supernatant. Wash twice with PBS, 5 minutes each time.The cell density is $1\times10^6$/mL.

b.Add 1 mL of working solution, and then incubate at room temperature for 20-30 minutes.
c.Centrifuge at 400 g at 4°C for 3-4 minutes and then discard the supernatant.
d.Wash twice with PBS, 5 minutes each time.
e.Resuspend cells with serum-free cell culture medium or PBS.Observation by fluorescence microscopy or flow cytometry.
2.2 Adherent cells
a.Culture adherent cells on sterile coverslips.
b.Remove the coverslip from the medium and aspirate excess medium.
c.Add 100 µL of working solution, gently shake it to completely cover the cells,and then incubate at room temperature for 20-30 minutes.
d.Wash twice with medium, 5 minutes each time. Observation by fluorescence microscopy or flow cytometry.

Storage
-20℃ 1 year.Protect from light.

Precautions
1. It is recommended to store the stock solution at -20℃ or -80℃ away from light and avoid repetitive freeze-thaw cycles.
2. Please adjust the concentration of Golgi 1-43 working solution according to the actual situation.
3. when the cell culture solution is removed with poor results, the cells can be washed with an appropriate amount of Hanks balanced salt solution.
4. This product is for R&D use only, not for drug, household, or other uses.
5. 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.

## REFERENCES

[1]. Podgorny OV, et al. Isolation of single Chlamydia-infected cells using laser microdissection. J Microbiol Methods. 2015 Feb;109:123-8.

[2]. Alamudi SH, et al. Development of background-free tame fluorescent probes for intracellular live cell imaging. Nat Commun. 2016 Jun 20;7:11964.



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