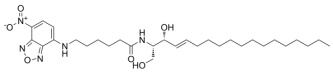
C6 NBD Ceramide

Cat. No.:	HY-W356116
CAS No.:	94885-02-6
Molecular Formula:	$C_{30}H_{49}N_5O_6$
Molecular Weight:	575.74
Target:	Fluorescent Dye
Pathway:	Others
Storage:	-20°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	C6 NBD Ceramide is a Golgi apparatus fluorescent probe with cell membrane permeability. C6 NBD Ceramide can be used for fast and convenient green fluorescent labeling of Golgi in living and fixed cells, and can be used to observe changes in Golgi morphology in living cells (Ex=466 nm, Em=536 nm). C6-NBD-ceramide is metabolized to fluorescent sphingomyelin and glucosylceramide, can be used for the study of sphingolipid transport and metabolic mechanism[1][2][3].
In Vitro	Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs). Labeling of Golgi apparatus[3]: 1. Rinse cells (on glass cover slips) by HMEM, then fix cells in glutaraldehyde or paraformaldehyde for 5-10 min (25℃). 2. Wash fixed cells in a balanced salt solution (such as HCMF). 3. Transfer culture dishes containing the glass cover slips to an ice-water bath and incubate with freshly prepared $NaBH_4$ for 3×5 min (for glutaraldehyde-fixed cells). 4. Rinse cells several times (20-30 min) in cold HCMF, warm to 25℃, then incubate with C6 NBD-ceramide/BSA for 60 min. 5. Wash fixed cells by HCMF, and incubate with 10% fetal calf serum or 2 mg/mL BSA (30-90 min; 25℃) to back-exchange excess C6 NBD-ceramide from the preparation and enhance the staining of the Golgi apparatus. 6. The glass cover slips mounted on depression slides and observe by fluorescence microscope (Ex=466 nm, Em=536 nm). MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Lipsky NG, et al. A vital stain for the Golgi apparatus. Science. 1985 May 10;228(4700):745-7.

[2]. Brandán YR, et al. Influence of sphingomyelin metabolism during epithelial-mesenchymal transition associated with aging in the renal papilla. J Cell Physiol. 2022 Jul 31.

[3]. Pagano RE. A fluorescent derivative of ceramide: physical properties and use in studying the Golgi apparatus of animal cells. Methods Cell Biol. 1989;29:75-85.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA