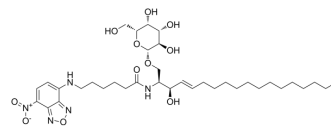


C6 NBD Galactosylceramide

Cat. No.:	HY-D1575
CAS No.:	170212-26-7
Molecular Formula:	C ₃₆ H ₅₉ N ₅ O ₁₁
Molecular Weight:	737.88
Target:	Fluorescent Dye
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	C6 NBD galactosylceramide is an active derivative of galactosylceramide that is tagged with fluorescent C6 nitrobenzoxadiazole (C6 NBD). C6 NBD galactosylceramide can be used as a substrate for neutral β -glucosylceramidase (GCase) to study intracellular localization and metabolism of galactosylceramide (Ex=nm, Em=525) ^[1] .
In Vitro	<p>C6-NBD-glucosylceramide (4 μM) is transported to the Golgi apparatus in HT29 cells^[1].</p> <p>Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs)^[2].</p> <p>Transcytosis of Exogenous C6-NBD-GalCer after Endocytosis:</p> <ol style="list-style-type: none"> 1. C6-NBD-glucosylceramide is inserted at 10°C. 2. Cells are rinsed three times with cold HBSS' and incubated at 37°C in HBSS' to allow endocytosis. 3. After 10 min, the probe remaining on the cell surface is removed by two (apical) or three (basal) BSA washes for 20 min at 10°C. 4. One set of filters is used for lipid analysis to quantitate endocytosis. A second set of filters is further incubated for 0.5 or 1 h at 37°C in HBSS' + BSA, to assay for reappearance of intracellular C6-NBD-glucosylceramide on either cell surface. 5. The incubations are followed by a 10°C BSA wash, after which the NBD lipids from the combined apical media, basal media, and the cells were extracted into chloroform/methanol, analyzed by TLC, and quantitated. <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. J W Kok, et al. Sorting of sphingolipids in the endocytic pathway of HT29 cells. *J Cell Biol.* 1991 Jul;114(2):231-9.

[2]. I van Genderen, et al. Differential targeting of glucosylceramide and galactosylceramide analogues after synthesis but not during transcytosis in Madin-Darby canine kidney cells. *J Cell Biol.* 1995 Nov;131(3):645-54.

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

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