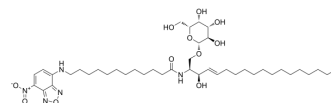


C12 NBD Galactosylceramide

Cat. No.:	HY-145493
CAS No.:	474942-98-8
Molecular Formula:	C ₄₂ H ₇₁ N ₅ O ₁₁
Molecular Weight:	822.04
Target:	Fluorescent Dye
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	C12 NBD galactosylceramide, fluorescent dye, is a biologically active derivative of galactosylceramide that is tagged with a fluorescent C12 nitrobenzoxadiazole (C12 NBD) group. C12 NBD galactosylceramide can be used for the research of imaging [1].
In Vitro	<p>Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).</p> <p>To determine whether ACDase could directly cleave galactosylceramide, incorporated the labeled galactose into galactosylceramide, which was then converted to psychosine by ACDase^[1]:</p> <ol style="list-style-type: none"> 20 μmol of C12-NBD-galactosylceramide were incubated with 5 to 10 μg of purified acid ceramidase in a 30 μL reaction containing 15 μL of 0.2 M citrate phosphate buffer (pH 4.5), 2.25 μL of 2 M NaCl, 1.5 μL of 10 mg/mL bovine serum albumin (BSA), and 0.3 μL of 10% IGEPAL CA630. Incubated at 37°C for 18 h without agitation and then stopped by adding 60 μL of acidified methanol. The amount of psychosine formed by the deacylase activity of the enzyme was determined by monitoring the release of NBD-fatty acid on an Acquity UPLC (excitation, 435 nm; emission, 525 nm). 26 μmol of C12-NBD-galactosylceramides is incubated at 37°C with 1.0 μg of enzyme for 3 h or 24 h. Detected minute levels of psychosine to compare the efficiency of ACDase substrates. <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Tomomi Sumida, et al. Molecular cloning and characterization of a novel glucocerebrosidase of Paenibacillus sp. TS12. J Biochem. 2002 Aug;132(2):237-43.

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

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