

4-Methylumbelliferyl- β -D-Glucopyranoside

Chemical Properties

CAS No. : 18997-57-4

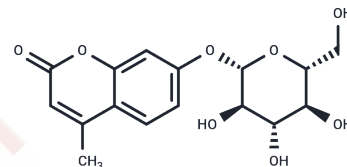
Formula: C₁₆H₁₈O₈

Molecular Weight: 338.31

Store at low temperature

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	4-Methylumbelliferyl- β -D-Glucopyranoside (4-MU-GLU) is used in the GCase activity assay based on the catalytic hydrolysis of 4-methylumbelliferyl β -D-glucopyranoside that releases the highly fluorescent 4-methylumbelliferyl (4-MU).
Targets(IC50)	Others,Glucosidase,glycosidase

Solubility Information

Solubility	DMSO: 50 mg/mL (147.79 mM),Heating is recommended. DMF: 50 mg/mL (147.79 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9559 mL	14.7793 mL	29.5587 mL
5 mM	0.5912 mL	2.9559 mL	5.9117 mL
10 mM	0.2956 mL	1.4779 mL	2.9559 mL
50 mM	0.0591 mL	0.2956 mL	0.5912 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.

Reference

- Oftedal L, et al. Validation and assessment of preanalytical factors of a fluorometric in vitro assay for glucocerebrosidase activity in human cerebrospinal fluid. *Sci Rep.* 2020;10(1):22098. Published 2020 Dec 16.
- Zheng F, Ke J, Lin S, et al. Discovery of cyanidin-3-O-galactoside as a novel CNT2 inhibitor for the treatment of hyperuricemia. *Bioorganic Chemistry.* 2024: 108108.
- Smitka CM, et al. Rapid fluorogenic assay for differentiation of the *Candida parapsilosis* group from other *Candida* spp. *J Clin Microbiol.* 1989;27(1):203-206.
- Shanmuganathan, M.K., and Britz-McKibbin, P. Inhibitor screening of pharmacological chaperones for lysosomal β -glucocerebrosidase by capillary electrophoresis *Anal. Bioanal. Chem.* 399(8), 2843-2853 (2011).
- Zhi, H., Wang, J., Wang, S., et al. Fluorescent properties of hymecromone and fluorimetric analysis of hymecromone in compound dantong capsule *J. Spectrosc.* 1(1), 147128 (2013).

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