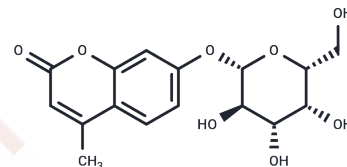


4-Methylumbelliferyl- β -D-Galactoside

Chemical Properties

CAS No. :	6160-78-7
Formula:	C ₁₆ H ₁₈ O ₈
Molecular Weight:	338.31
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	4-Methylumbelliferyl- β -D-galactoside (MUG) is a fluorogenic substrate for β -galactosidase (β -gal). Hydrolysis of MUG by β -gal releases the fluorescent moiety 4-MU, which displays a pH-dependent excitation maximum of 330, 370, and 385 nm at pH 4.6, 7.4, and 10.4, respectively, and an emission maximum between 445-454 nm. MUG has been used to detect β -gal activity in intact bacteria, yeast, and mammalian cells.
Targets(IC50)	Others

Solubility Information

Solubility	Ethanol: Slightly soluble Methanol: Slightly soluble DMSO: Slightly soluble (< 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

Vidal-Aroca, F., Giannattasio, M., Brunelli, E., et al. One-step high-throughput assay for quantitative detection of β -galactosidase activity in intact Gram-negative bacteria, yeast, and mammalian cells *Biotechniques* 40(4)433-434 (2006)

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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