Data Sheet (Cat.No.T37192)

TargetMol

4-Methylumbelliferyl-α-D-Galactopyranoside

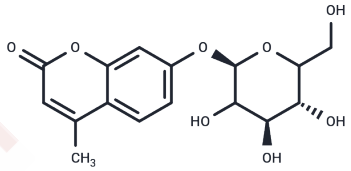
Chemical Properties

CAS No. : 38597-12-5

Formula: C16H18O8

Molecular Weight: 338.31

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-α-D-Galactopyranoside (4MU-α-Gal) (4-MU-α-Gal) is a fluorogenic substrate of α-galactosidase. In addition to its use in characterizing novel α-galactosidases, 4-MU-α-Gal is used in assays to evaluate deficiency in α-galactosidase activity related to Fabry disease.
Targets(IC50)	Others
In vitro	Hydrolysis of 4-MU-α-Gal releases the fluorescent product 4-MU, which has an emission maximum at 445-454 nm. The excitation maximum for 4-MU is pH-dependent: 330, 370, and 385 nm at pH 4.6, 7.4, and 10.4, respectively[1].

Solubility Information

Solubility	DMF: 45 mg/mL (133.01 mM),Sonication is recommended. DMSO: 4.64 mg/mL (13.72 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 0.46 mg/mL (1.36 mM),Solution. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

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

Omid Motabar, et al. High throughput screening for inhibitors of alpha-galactosidase. Curr Chem Genomics. 2010 Dec 3;4:67-73.