β-Lactose

Cat. No.: HY-W150340

CAS No.: 5965-66-2

Molecular Formula: $C_{12}H_{22}O_{11}$

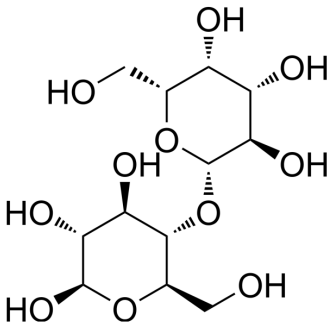
Molecular Weight: 342.3

Target: Galectin; Biochemical Assay Reagents

Pathway: Immunology/Inflammation; Others

Storage: 4°C, stored under nitrogen

* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (365.18 mM; Need ultrasonic)

H_2O : 62.5 mg/mL (182.59 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.9214 mL	14.6071 mL	29.2141 mL
5 mM	0.5843 mL	2.9214 mL	5.8428 mL
10 mM	0.2921 mL	1.4607 mL	2.9214 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

β-Lactose is a disaccharide commonly found in milk and dairy products. It consists of two monosaccharides, glucose and galactose, linked by β-glycosidic bonds. β-Lactose has various applications in the food industry, especially as a sweetener and bulking agent. Furthermore, it can be used as a substrate for enzymes involved in lactose metabolism and as a model compound for studying carbohydrate-protein interactions.

In Vitro

β-Lactose is the anomeric form of Lactose. β-Lactose is a natural inhibitor of the Galectin-3 protein with potential anti-tumor activity.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Da Silva M P, et al. Creation of a new proof-of-concept pectin/lysozyme nanocomplex as potential β-lactose delivery matrix: Structure and thermal stability analyses[J]. Food Hydrocolloids, 2023, 134: 108011.

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

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