Proteins

Product Data Sheet

B-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)

H₂O: 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

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

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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Page 2 of 2 www.MedChemExpress.com