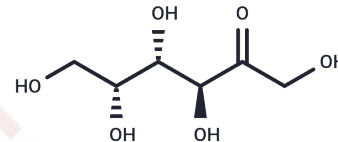


D-Tagatose

Chemical Properties

CAS No. :	87-81-0
Formula:	C ₆ H ₁₂ O ₆
Molecular Weight:	180.16
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	D-Tagatose (D-(-)-Tagatose), a rare natural hexoketose and isomer of D-galactose, occurs naturally in Sterculia setigera gum and is found in small quantities in various foods such as sterilized and powdered cow's milk, hot cocoa, and various cheeses, yogurts, and other dairy products. It can be synthesized from D-galactose by isomerization under alkaline conditions in the presence of calcium. D-Tagatose has numerous health benefits, including promotion of weight loss, no glycemic effect, anti-plaque, non-cariogenic, anti-halitosis, prebiotic, and anti-biofilm properties; it is beneficial for organ transplants, enhancement of flavor, improvement of pregnancy and fetal development, treatment of obesity, and reduction in symptoms associated with type 2 diabetes, hyperglycemia, anemia, and hemophilia. (PMID: 17492284).
Targets(IC50)	Endogenous Metabolite

Solubility Information

Solubility	DMSO: 50 mg/mL (277.53 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.5 mg/mL (13.88 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.5506 mL	27.7531 mL	55.5062 mL
5 mM	1.1101 mL	5.5506 mL	11.1012 mL
10 mM	0.5551 mL	2.7753 mL	5.5506 mL
50 mM	0.111 mL	0.5551 mL	1.1101 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

Deokkun O . Tagatose: properties, applications, and biotechnological processes[J]. Applied Microbiology & Biotechnology, 2007, 76(1):1.

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