D-Tagatose

Cat. No.: HY-42680

CAS No.: 87-81-0

Molecular Formula: $C_6H_{12}O_6$

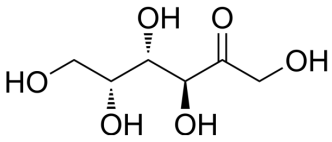
Molecular Weight: 180.16

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (555.06 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	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

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (11.55 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (11.55 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (11.55 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

D-Tagatose (D-(-)-Tagatose) is a rare monosaccharide found in nature with prebiotic characteristics. D-Tagatose is as a substitute for sucrose and a low-calorie sweetener in foodstuffs such as gum, fruit juice, and beverages. D-Tagatose is also a potential antidiabetic agent for the research of type II diabetes and a prebiotic to help elevate beneficial bacteria in the colon, prevent colon cancer, and lower cholesterol[1].

IC_{50} & Target

Human Endogenous Metabolite

REFERENCES

[1]. Jeong DW, et al. Trienzymatic Complex System for Isomerization of Agar-Derived d-Galactose into d-Tagatose as a Low-Calorie Sweetener. J Agric Food Chem. 2020;68(10):3195-3202.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA