Lactose

Cat. No.: HY-B2123

CAS No.: 63-42-3

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

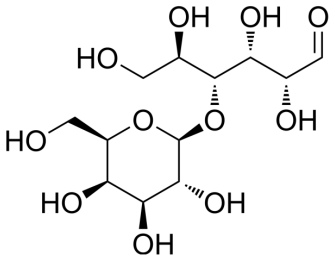
Molecular Weight: 342.3

Target: Endogenous Metabolite; Bacterial

Pathway: Metabolic Enzyme/Protease; Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (292.14 mM; Need ultrasonic)
DMSO : 50 mg/mL (146.07 mM; Need ultrasonic)

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.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 130 mg/mL (379.78 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.30 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.30 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.30 mM); Clear solution

BIOLOGICAL ACTIVITY

Description Lactose, a major sugar in the milk of most species, could regulate human's intestinal microflora.

IC_{50} & Target		
	Human Endogenous Metabolite	Human Endogenous Metabolite

REFERENCES

[1]. Kleessen B, et al. Effects of inulin and lactose on fecal microflora, microbial activity, and bowel habit in elderly constipated persons. Am J Clin Nutr. 1997 May;65(5):1397-402.

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