Screening Libraries

Product Data Sheet

Lactulose

Cat. No.: HY-B1172 CAS No.: 4618-18-2 Molecular Formula: $C_{12}H_{22}O_{11}$ Molecular Weight: 342

Target: Endogenous Metabolite; Bacterial

Pathway: Metabolic Enzyme/Protease; Anti-infection

4°C, sealed storage, away from moisture Storage:

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

 $H_2O : \ge 100 \text{ mg/mL} (292.40 \text{ mM})$

DMSO: 25 mg/mL (73.10 mM; Need ultrasonic) * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.9240 mL	14.6199 mL	29.2398 mL
	5 mM	0.5848 mL	2.9240 mL	5.8480 mL
	10 mM	0.2924 mL	1.4620 mL	2.9240 mL

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

In Vivo

- 1. Add each solvent one by one: PBS Solubility: 100 mg/mL (292.40 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 (7.31 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.31 mM); Clear solution
- 4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.31 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Lactulose (4-O-β-D-Galactopyranosyl-D-fructose) is a poorly absorbed sugar that can be used to study constipation and hepatic encephalopathy. The drug generally begins to take effect 8 to 12 hours after administration, but it may take two days to improve constipation.

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

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