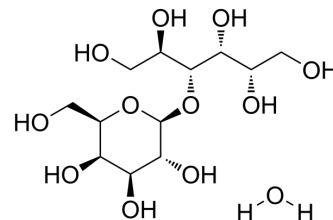


## Lactitol monohydrate

<b>Cat. No.:</b>	HY-B1389		
<b>CAS No.:</b>	81025-04-9		
<b>Molecular Formula:</b>	C <sub>12</sub> H <sub>26</sub> O <sub>12</sub>		
<b>Molecular Weight:</b>	362.33		
<b>Target:</b>	Bacterial		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 120 mg/mL (331.19 mM; Need ultrasonic)  
 DMSO : 100 mg/mL (275.99 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
<b>1 mM</b>	2.7599 mL	13.7996 mL	27.5992 mL
<b>5 mM</b>	0.5520 mL	2.7599 mL	5.5198 mL
<b>10 mM</b>	0.2760 mL	1.3800 mL	2.7599 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 25 mg/mL (69.00 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (6.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (6.90 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (6.90 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Lactitol monohydrate is a disaccharide analogue of lactulose. It has been widely used in the treatment of constipation & hepatic encephalopathy. Lactitol is sugar alcohol used as replacement sweeteners.

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## REFERENCES

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[1]. Yamamoto Y, et al. Continuous combined intake of polydextrose and lactitol stimulates cecal fermentation and salivary IgA secretion in rats. J Oral Sci. 2017;59(4):603-610.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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