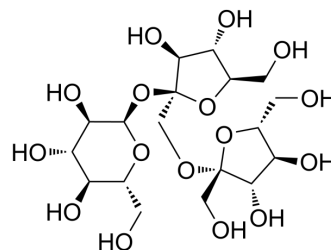


1-Kestose

Cat. No.:	HY-N2579
CAS No.:	470-69-9
Molecular Formula:	C ₁₈ H ₃₂ O ₁₆
Molecular Weight:	504.44
Target:	Endogenous Metabolite; Bacterial
Pathway:	Metabolic Enzyme/Protease; Anti-infection
Storage:	-20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (198.24 mM; Need ultrasonic)					
	H ₂ O : 83.33 mg/mL (165.19 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
			1 mM	1.9824 mL	9.9120 mL	19.8240 mL
			5 mM	0.3965 mL	1.9824 mL	3.9648 mL
10 mM			0.1982 mL	0.9912 mL	1.9824 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 (198.24 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 (4.96 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.96 mM); Clear solution					
	4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.96 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	1-Kestose, the smallest fructooligosaccharide component, which efficiently stimulates <i>Faecalibacterium prausnitzii</i> as well as <i>Bifidobacteria</i> .
In Vitro	<i>Faecalibacterium prausnitzii</i> is anti-inflammatory commensal bacterium identified by gut microbiota analysis of Crohn disease. <i>Bifidobacteria</i> exerts a beneficial effect on atopic dermatitis (AD) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Tochio T, et al. 1-Kestose, the Smallest Fructooligosaccharide Component, Which Efficiently Stimulates Faecalibacterium prausnitzii as Well as Bifidobacteria in Humans. Foods. 2018 Sep 1;7(9). pii: E140.
- [2]. Takumi Tochio, et al. 1-Kestose, the Smallest Fructooligosaccharide Component, Which Efficiently Stimulates Faecalibacterium prausnitzii as Well as Bifidobacteria in Humans. Foods. 2018 Sep 1;7(9):140.
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Caution: Product has not been fully validated for medical applications. For research use only.

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