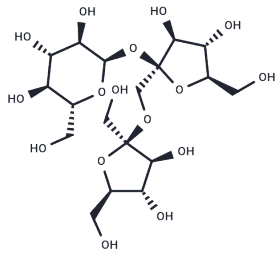
Data Sheet (Cat.No.T5731)

TargetMol

1-Kestose

Chemical Properties



CAS No. : 470-69-9

Formula: C18H32O16

Molecular Weight: 504.44

Storage: Keep away from direct sunlight,Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	1-Kestose shows significant anti-hydroxyl radical potential. 1-Kestose can promote intestinal Lactobacillus number, and influence the microorganisms as well as the intestinal and systemic immune responses.
Targets(IC50)	Endogenous Metabolite,Antibacterial
In vivo	1-kestose, which is the smallest component of FOS, on F. prausnitzii in the gut of humans. 1-kestose has impressive potential as a new prebiotic targeting F. prausnitzii, a next-generation probiotic strain, as well as bifidobacteria.

Solubility Information

Solubility	DMSO: 120 mg/mL (237.89 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (7.93 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9824 mL	9.912 mL	19.824 mL
5 mM	0.3965 mL	1.9824 mL	3.9648 mL
10 mM	0.1982 mL	0.9912 mL	1.9824 mL
50 mM	0.0396 mL	0.1982 mL	0.3965 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Takumi T, Yoshihiro K, Toshio T, et al. 1-Kestose, the Smallest Fructooligosaccharide Component, Which Efficiently Stimulates Faecalibacterium prausnitzii as Well as Bifidobacteria in Humans[J]. Foods, 7(9):140-.
González-Prada A, Díez-Municio M, Soria A C, et al.SIMULTANEOUS MICROWAVE-ASSISTED EXTRACTION OF BIOACTIVE COMPOUNDS FROM AGED GARLIC.Journal of Chromatography A.2023: 464128.