Kojibiose

Cat. No.: HY-113133

CAS No.: 2140-29-6

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

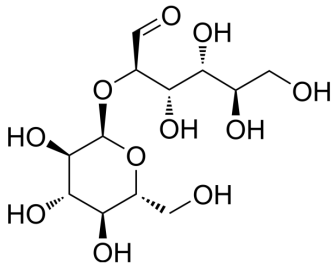
Molecular Weight: 342.3

Target: Glucosidase

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 125 mg/mL (365.18 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.

BIOLOGICAL ACTIVITY

Description

Kojibiose, an orally active prebiotic disaccharide, can specifically inhibit the activity of α-glucosidase I. kojibiose is a proliferation factor for Bifidobacterium, lactic acid bacteria, and eubacteria. kojibiose is a low-calorie sweetener capable of increasing the absorption of iron. Kojibiose exhibits antitoxic activity. Kojibiose reduces hepatic expression of inflammatory markers in vivo[1][2].

In Vivo

Kojibiose (0.5 %; w/w daily consumption of diet; for 20 d) significantly improves the severity of arachidic acid (ARa; 0.3 mg daily for 20 d)-induced hepatic alterations[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female Wistar albino rats, aged 3 weeks with Streptozotocin (STZ; HY-13753) two doses of 25 mg/kg per d with a time lapse of 24 h[1]
Dosage:	0.5%, w/w
Administration:	Diet; daily for 20 d

Result:	Significantly improved the severity of arachidic acid (ARa; 0.3 mg daily for 20 d)-induced hepatic alterations. Significantly increased expression values of PPAR α in comparison with those fed only ARa, suggesting an increased fatty acid metabolism. Showed reduced LPC and PS values than did animals fed only ARa.

REFERENCES

[1]. José Moisés Laparra, et al. Kojibiose ameliorates arachidic acid-induced metabolic alterations in hyperglycaemic rats. Br J Nutr. 2015 Nov 14;114(9):1395-402.

[2]. Miaomiao Wang, et al. Cloning and expression of the sucrose phosphorylase gene in Bacillus subtilis and synthesis of kojibiose using the recombinant enzyme. Microb Cell Fact. 2018 Feb 15;17(1):23.

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