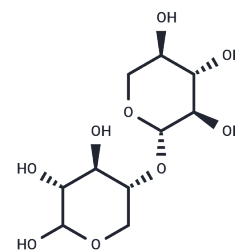


XYLOBIOSE

Chemical Properties

CAS No. :	6860-47-5
Formula:	C ₁₀ H ₁₈ O ₉
Molecular Weight:	282.24
Storage:	Keep away from direct sunlight, Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	XYLOBIOSE is a natural product, and exhibited therapeutic potential for treating obesity which involved suppression of fat deposition and obesity-related metabolic disorders.
Targets(IC50)	HSP, IL Receptor, TNF, Tight Junction Protein
In vivo	Mice received a 60% high-fat diet supplemented with 15% d-xylose, 10% XYLOBIOSE, or 15% XYLOBIOSE as part of the total sucrose content of the diet for ten weeks. Body weight, fat and liver weights, fasting blood glucose, and blood lipids levels were significantly reduced with XYLOBIOSE supplementation. Levels of leptin and adipokine were also improved and lipogenic and adipogenic genes in mesenteric fat and liver were down-regulated with XYLOBIOSE supplementation. Furthermore, pro-inflammatory cytokines, fatty acid uptake, lipolysis, and β -oxidation-related gene expression levels in mesenteric fat were down-regulated with XYLOBIOSE supplementation[1]. XYLOBIOSE exhibits anti-diabetic, hypolipogenic, and anti-inflammatory effects via regulation of the miR-122a/33a axis in db/db mice[2].
Animal Research	The mice were randomized into five groups: (a) a control group (Ctrl, n = 10) which received a diet of modified American Institute of Nutrition (AIN)-93G (17% of the calories are from fat); (b) a high fat diet (HFD)-induced obesity control group (HF, n = 13) which received a HFD comprised of 60% fat; (c) a xylose 15% group (Xylo 15) which received a HFD with 15% of the total sucrose replaced with d-xylose (n = 13); (d) an XYLOBIOSE 10% group (XYLOBIOSE 10, n = 13) which received a HFD with 10% of the total sucrose replaced by XYLOBIOSE; and (e) an XYLOBIOSE 15% group (XYLOBIOSE 15, n = 12) which received a HFD with 15% of the total sucrose replaced by XYLOBIOSE. Commercially available D-xylose was included as a positive control and was administered at a dose comparable to XYLOBIOSE. The mice were maintained on these diets according to their group for ten weeks prior to sacrifice. Body weight and food intake were measured twice a week.

Solubility Information

A DRUG SCREENING EXPERT

Solubility	DMSO: 250 mg/mL (885.77 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5431 mL	17.7154 mL	35.4308 mL
5 mM	0.7086 mL	3.5431 mL	7.0862 mL
10 mM	0.3543 mL	1.7715 mL	3.5431 mL
50 mM	0.0709 mL	0.3543 mL	0.7086 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

Soo-Min L , Eunju K , Jae-Ho S , et al. Xylobiose Prevents High-Fat Diet Induced Mice Obesity by Suppressing Mesenteric Fat Deposition and Metabolic Dysregulation[J]. Molecules, 2018, 23(3):705-.

Eunjin L , Ji L , Eunju K , et al. Xylobiose, an Alternative Sweetener, Ameliorates Diabetes-Related Metabolic Changes by Regulating Hepatic Lipogenesis and miR-122a/33a in db/db Mice[J]. Nutrients, 2016, 8(12):791-.

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