Data Sheet (Cat.No.TN6745)

PALATINOSE

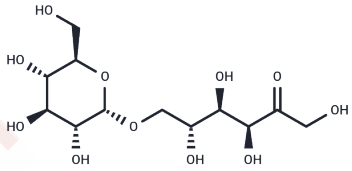
Chemical Properties

CAS No. : 13718-94-0

Formula: C12H22O11

Molecular Weight: 342.3

Storage: 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	PALATINOSE (TNP-470) is a natural occurring disaccharide composed of alpha-1,6-linked glucose and fructose. PALATINOSE has a beneficial effect on liver metabolic functions and might therefore be a good substitute for sucrose as a sweetener.
Targets(IC50)	Others
In vivo	Compared with the mice fed the sucrose diet, the palatinose diet resulted in lower serum glucose, insulin, and total cholesterol levels, as well as lower expression of several lipogenesis-related genes and proteins. Histological analysis of hepatic cells of palatinose-fed mice showed normal morphology. In conclusion, palatinose intake results in lower hepatic lipogenesis and better cholesterol homeostasis than the effects from sucrose.

Solubility Information

Solubility	DMSO: 250 mg/mL (730.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (29.21 mM),Solution. *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	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
50 mM	0.0584 mL	0.2921 mL	0.5843 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

Hwang D, Park HR, Lee SJ, Kim HW, Kim JH, Shin KS. Oral administration of palatinose vs sucrose improves hyperglycemia in normal C57BL/6J mice. Nutr Res. 2018 Nov;59:44-52.
Isomaltulose (Palatinose): a review of biological and toxicological studies

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481