α-Lactose

Cat. No.: HY-N2514

CAS No.: 14641-93-1

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

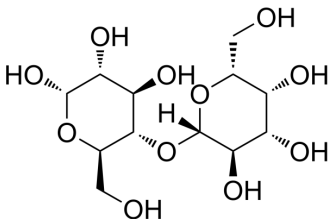
Molecular Weight: 342.3

Target: Others

Pathway: Others

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 62.5 mg/mL (182.59 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.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 25 mg/mL (73.04 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

BIOLOGICAL ACTIVITY

Description

α-Lactose (α-D-Lactose) is the major sugar present in milk. Lactose exists in the form of two anomers, α and β. The α form normally crystallizes as a monohydrate[1][2].

In Vitro

Lactose is a very important sugar because of its abundance in the milk of humans and domestic animals. Lactose is a valuable asset as a basic nutrient and the main substrate in fermentative processes that led to the production of fermented milk products, such as yogurt and kefir[3].

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

REFERENCES

[1]. Lactose.

[2]. Schuck, et al. Lactose crystallization: determination of α-lactose monohydrate in spray-dried dairy products. (2002).

[3]. Ana C Adam, et al. Lactose: The Milk Sugar From a Biotechnological Perspective. Crit Rev Food Sci Nutr. 2004;44(7-8):553-7.

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