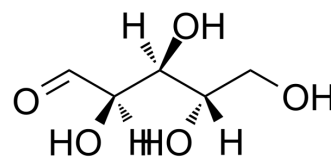


L-(+)-Arabinose

Cat. No.:	HY-W015611		
CAS No.:	5328-37-0		
Molecular Formula:	C ₅ H ₁₀ O ₅		
Molecular Weight:	150.13		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 500 mg/mL (3330.45 mM; Need ultrasonic)
 DMSO : 50 mg/mL (333.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	6.6609 mL	33.3045 mL	66.6089 mL
	5 mM	1.3322 mL	6.6609 mL	13.3218 mL
	10 mM	0.6661 mL	3.3304 mL	6.6609 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 60 mg/mL (399.65 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (16.65 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (16.65 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (16.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

L-(+)-Arabinose selectively inhibits intestinal sucrose activity in a noncompetitive manner and suppresses the plasma glucose increase due to sucrose ingestion.

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

L-(+)-Arabinose selectively inhibits intestinal sucrase activity in a noncompetitive manner and suppresses the plasma glucose increase due to sucrose ingestion^[1]. L-(+)-Arabinose is found to be associated with ribose-5-phosphate isomerase deficiency, which is an inborn error of metabolism^[2].

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

REFERENCES

[1]. Osaki S, et al. L-arabinose feeding prevents increases due to dietary sucrose in lipogenic enzymes and triacylglycerol levels in rats. J Nutr. 2001 Mar;131(3):796-9.

[2]. Huck JH, et al. Ribose-5-phosphate isomerase deficiency: new inborn error in the pentose phosphate pathway associated with a slowly progressive leukoencephalopathy. Am J Hum Genet. 2004 Apr;74(4):745-51.

Caution: Product has not been fully validated for medical applications. For research use only.

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