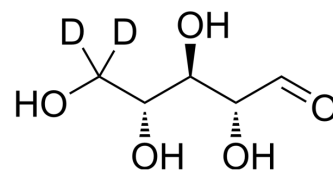


D-Ribose-d₂

Cat. No.:	HY-W018772S10		
CAS No.:	478506-32-0		
Molecular Formula:	C ₅ H ₈ D ₂ O ₅		
Molecular Weight:	152.14		
Target:	Endogenous Metabolite; Isotope-Labeled Compounds		
Pathway:	Metabolic Enzyme/Protease; Others		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 250 mg/mL (1643.22 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	6.5729 mL	32.8645 mL	65.7289 mL
5 mM	1.3146 mL	6.5729 mL	13.1458 mL
10 mM	0.6573 mL	3.2864 mL	6.5729 mL

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

BIOLOGICAL ACTIVITY

Description

D-Ribose-d₂ is the deuterium labeled D-Ribose. D-Ribose is an energy enhancer, and acts as a sugar moiety of ATP, and widely used as a metabolic therapy supplement for chronic fatigue syndrome or cardiac energy metabolism. D-Ribose is active in protein gl

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

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

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.

[2]. Hong J, et al. D-ribose induces nephropathy through RAGE-dependent NF-κB inflammation. *Arch Pharm Res*. 2018 Aug;41(8):838-847.

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

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