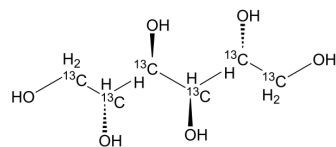


D-Mannitol-¹³C₆

Cat. No.:	HY-N0378S2
CAS No.:	287112-34-9
Molecular Formula:	¹³ C ₆ H ₁₄ O ₆
Molecular Weight:	188.13
Target:	Apoptosis; Endogenous Metabolite
Pathway:	Apoptosis; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	D-Mannitol- ¹³ C ₆ is the ¹³ C labeled D-Mannitol[1]. D-Mannitol is an osmotic diuretic agent and a weak renal vasodilator[2][3][4].
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]. Tan, K., et al., The mannitol operon repressor MtlR belongs to a new class of transcription regulators in bacteria. *J Biol Chem*, 2009. 284(52): p. 36670-9.
- [3]. Nishiyama, A., et al., Mannitol lowers fat digestibility and body fat accumulation in both normal and cecectomized rats. *J Nutr Sci Vitaminol (Tokyo)*, 2009. 55(3): p. 242-51.
- [4]. Hanieh, H. and E. Sakaguchi, Effect of D-mannitol on feed digestion and cecotrophic system in rabbits. *Anim Sci J*, 2009. 80(2): p. 157-62.

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

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