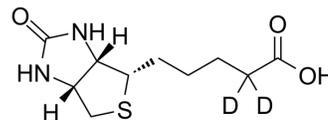


Biotin-d2

Cat. No.:	HY-B0511S2
Molecular Formula:	C ₁₀ H ₁₄ D ₂ N ₂ O ₃ S
Molecular Weight:	246.32
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Biotin-d2 (Vitamin B7-d2) is the deuterium labeled Biotin. Biotin is an enzyme co-factor present in minute amounts in every living cell.
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;53(2):211-216.
- [2]. Zempleni, J. and D.M. Mock, Biotin biochemistry and human requirements. *J Nutr Biochem*, 1999. 10(3): p. 128-38.
- [3]. Mock, D.M., Biotin status: which are valid indicators and how do we know? *J Nutr*, 1999. 129(2S Suppl): p. 498S-503S.

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

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