Product Data Sheet

Ribitol-5-13C

Cat. No.: HY-100582S3

Molecular Formula: $C_4^{13}CH_{12}O_5$ Molecular Weight: 153.14

Target: Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Ribitol- 5^{-13} C is the 13 C labeled Ribitol. Ribitol is a crystalline pentose alcohol formed by the reduction of ribose. Enhancing the flux of D-glucose to the pentose phosphate pathway in Saccharomyces cerevisiae for the production of D-ribose and ribitol
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]. Praissman JL, et al. The functional O-mannose glycan on α -dystroglycan contains a phospho-Ribitol primed for matriglycan addition. Elife. 2016 Apr 29;5. pii: e14473.;Toivari MH, et al. Enhancing the flux of D-glucose to the pentose phosphate pathway in Sa

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

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