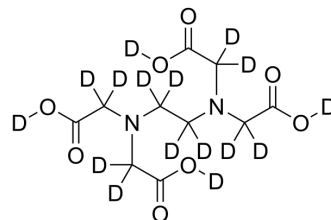


Ethylenediaminetetraacetic acid-d₁₆

Cat. No.:	HY-Y0682S1
CAS No.:	203805-96-3
Molecular Formula:	C ₁₀ D ₁₆ N ₂ O ₈
Molecular Weight:	308.34
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	<p>Ethylenediaminetetraacetic acid-d₁₆ is the deuterium labeled Ethylenediaminetetraacetic acid[1].</p> <p>Ethylenediaminetetraacetic acid (EDTA) is a metal chelators (binds to metal divalent and trivalent cations including calcium), which shows activities of anticoagulant and anti-hypercalcemic. Ethylenediaminetetraacetic acid decreases the metal ion-catalyzed oxidative damage to proteins, and allows maintenance of reducing environment during protein purification. Ethylenediaminetetraacetic acid can also decrease the formation of disulfide bonds[2][3][4].</p>
In Vitro	<p>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].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019 Feb;53(2):211-216.
- [2]. Chumanov RS, et al. Artifact-inducing enrichment of ethylenediaminetetraacetic acid and ethyleneglycoltetraacetic acid on anion exchange resins. *Anal Biochem.* 2011 May 1;412(1):34-9.
- [3]. Banfi G, et al. The role of ethylenediamine tetraacetic acid (EDTA) as in vitro anticoagulant for diagnostic purposes. *Clin Chem Lab Med.* 200745(5):565-76.
- [4]. Ibad A, et al. Chelation therapy in the treatment of cardiovascular diseases. *J Clin Lipidol.* 2016 Jan-Feb10(1):58-62.

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

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