Product Data Sheet

DL-α-Tocopherol acetate-13C4,d6

Cat. No.:	HY-B1278AS	
Molecular Formula:	$C_{27}^{13}C_{4}H_{46}D_{6}O_{3}$	
Molecular Weight:	482.75	
Target:	Endogenous Metabolite	H3 ¹³
Pathway:	Metabolic Enzyme/Protease	
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	



biological activity		
Description	DL-α-Tocopherol acetate- ¹³ C ₄ ,d ₆ is the deuterium and ¹³ C labeled DL-α-Tocopherol acetate[1]. DL-α-Tocopherol acetate is a vitamin E derivative which is often included in the formulations of enteral nutrition[2][3].	
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]. Nagy K, et al. Double-balloon jejunal perfusion to compare absorption of vitamin E and vitamin E acetate in healthy volunteers under maldigestion conditions. Eur J Clin Nutr. 2013 Feb;67(2):202-6.

[3]. Nishio K, et al. α-Tocopheryl phosphate: uptake, hydrolysis, and antioxidant action in cultured cells and mouse. Free Radic Biol Med. 2011 Jun 1550(12):1794-800.

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

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