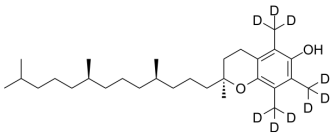
l-α-Tocopherol-d_9

Cat. No.:	HY-N0683S3
CAS No.:	131321-20-5
Molecular Formula:	$C_{29}H_{41}D_9O_2$
Molecular Weight:	439.76
Target:	Bacterial; Influenza Virus; Ferroptosis; Endogenous Metabolite; Reactive Oxygen Species
Pathway:	Anti-infection; Apoptosis; Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	α-Vitamin E-d_9 is the deuterium labeled α-Vitamin E[1]. α-Vitamin E ((+)-α-Tocopherol), a naturally occurring vitamin E form, is a potent antioxidant[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]. Maret G Traber, et al. Vitamin E, antioxidant and nothing more. Free Radic Biol Med. 2007 Jul 1;43(1):4-15.

[3]. Daiki Hayashi, et al. Amelioration of diabetic nephropathy by oral administration of d-α-tocopherol and its mechanisms. Biosci Biotechnol Biochem. 2018 Jan;82(1):65-73.

[4]. Atchara Paemanee, et al. Screening of melatonin, α-tocopherol, folic acid, acetyl-L-carnitine and resveratrol for anti-dengue 2 virus activity. BMC Res Notes. 2018 May 16;11(1):307.

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