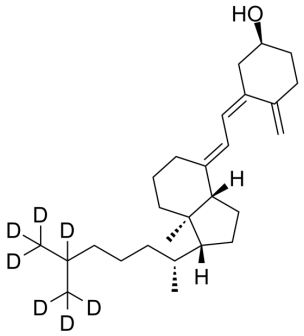
Vitamin D3-d_7

Cat. No.:	HY-15398S
CAS No.:	1627523-19-6
Molecular Formula:	$C_{27}H_{37}D_7O$
Molecular Weight:	391.68
Target:	VD/VDR; Endogenous Metabolite
Pathway:	Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease
Storage:	-80°C, protect from light, stored under nitrogen



BIOLOGICAL ACTIVITY

Description	Vitamin D3-d_7 is the deuterium labeled Vitamin D3. Vitamin D3 (Cholecalciferol) is a naturally occuring form of vitamin D. Vitamin D3 induces cell differentiation and prevents proliferation of cancer cells[1][2].
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]. Nazik Al-Hashimi, et al. Cholecalciferol

[3]. Laura Bergadà, et al. Role of local bioactivation of vitamin D by CYP27A1 and CYP2R1 in the control of cell growth in normal endometrium and endometrial carcinoma. Lab Invest. 2014 Jun;94(6):608-22

[4]. Hiroki Yoshioka, et al. Vitamin D3-induced hypercalcemia increases carbon tetrachloride-induced hepatotoxicity through elevated oxidative stress in mice. PLoS One. 2017 Apr 27;12(4):e0176524.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA