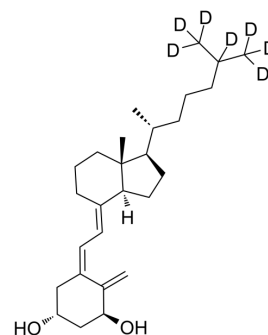


## Alfacalcidol-d7

Cat. No.:	HY-10003S
Molecular Formula:	C <sub>27</sub> H <sub>37</sub> D <sub>7</sub> O <sub>2</sub>
Molecular Weight:	407.68
Target:	VD/VDR
Pathway:	Vitamin D Related
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Alfacalcidol-d7 (1-hydroxycholecalciferol-d7) is the deuterium labeled Alfacalcidol. Alfacalcidol (1-hydroxycholecalciferol) is a vitamin D active metabolites, acts as a non-selective VDR activator medication, and widely be used in the management of osteoporosis <sup>[1][2][3][4]</sup> .
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Galeşanu C, et al. [Postmenopausal osteoporosis. Digital Rx radiogrammetry in the diagnosis and follow-up of treatment with alfacalcidol]. *Rev Med Chir Soc Med Nat Iasi.* 2006 Oct-Dec;110(4):833-41.
- [3]. Nuijten M, et al. Cost Effectiveness of Paricalcitol versus a Non-Selective Vitamin D Receptor Activator for Secondary Hyperparathyroidism in the UK. *Clin Drug Investig.* 2010;30(8):545-57.
- [4]. Shiraishi A, et al. The advantage of alfacalcidol over vitamin D in the treatment of osteoporosis. *Calcif Tissue Int.* 1999 Oct;65(4):311-6.
- [5]. Nagaoka H, et al. Alfacalcidol enhances collagen quality in ovariectomized rat bones. *J Orthop Res.* 2014 Aug;32(8):1030-6.

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

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