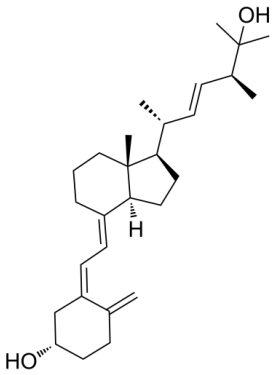
Data Sheet

Product Name:	Ercalcidiol
Cat. No.:	CS-0393
CAS No.:	21343-40-8
Molecular Formula:	$C_{28}H_{44}O_2$
Molecular Weight:	412.65
Target:	Endogenous Metabolite; VD/VDR
Pathway:	Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor
Solubility:	DMSO : 200 mg/mL (ultrasonic;warming;heat to 60°C)



BIOLOGICAL ACTIVITY:

Ercalcidiol is a metabolite of **vitamin D_2**, is regarded as an indicator of vitamin D nutritional status. IC50 & Target:Vitamin D_2[1] ***In Vitro:*** Differentiation between Ercalcidiol (25(OH)D_2) and 25(OH)D_3 is important for monitoring vitamin D therapy, as vitamin D_2 is the predominant prescription form. The half-life of Ercalcidiol is shorter than that of 25(OH)D_3 and it binds less well to the vitamin D binding protein, making it less potent and, therefore, required to be administered at much higher doses than vitamin D_3. Some currently used assays have a diminished capacity to detect Ercalcidiol, which can lead to dangerous overdosing when attempting to monitor therapy with vitamin D_2[2].

References:

[1]. Li L, et al. Performance evaluation of two immunoassays for 25-hydroxyvitamin D. J Clin Biochem Nutr. 2016 May;58(3):186-92.

[2]. Newman MS, et al. A liquid chromatography/tandem mass spectrometry method for determination of 25-hydroxy vitamin D2 and 25-hydroxy vitamin D3 in dried blood spots: a potential adjunct to diabetes and cardiometabolic risk screening. J Diabetes Sci Technol

CAIndexNames:

Cyclohexanol, 4-methylene-3-[(2E)-2-[(1R,3aS,7aR)-octahydro-1-[(1R,2E,4S)-5-hydroxy-1,4,5-trimethyl-2-hexenyl]-7a-methyl-4H-inden-4-ylidene]ethylidene]-, (1S,3Z)-

SMILES:

C=C1CC[C@H](O)C/C1=C/C=C2[C@]3([C@@](C)([C@H](CC3)[C@@H](/C=C/[C@@H](C(C)(O)C)C)C)CCC/2)[H]

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

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