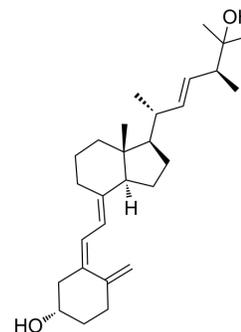


Ercalcidiol

Cat. No.:	HY-32349
CAS No.:	21343-40-8
Molecular Formula:	C ₂₈ H ₄₄ O ₂
Molecular Weight:	412.65
Target:	VD/VDR; Endogenous Metabolite
Pathway:	Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease
Storage:	-20°C, protect from light, stored under nitrogen * The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (242.34 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.4234 mL	12.1168 mL	24.2336 mL
		5 mM	0.4847 mL	2.4234 mL	4.8467 mL
		10 mM	0.2423 mL	1.2117 mL	2.4234 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (6.06 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.06 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.06 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Ercalcidiol is a metabolite of vitamin D ₂ , is regarded as an indicator of vitamin D nutritional status.
IC ₅₀ & Target	Human Endogenous Metabolite
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] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Sci Rep. 2022 Feb 22;12(1):3014.

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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

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

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