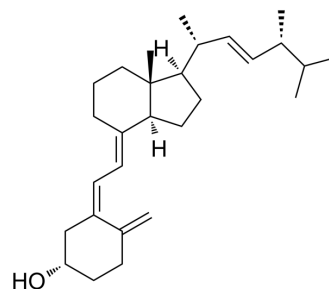


Vitamin D2

Cat. No.:	HY-76542
CAS No.:	50-14-6
Molecular Formula:	C ₂₈ H ₄₄ O
Molecular Weight:	396.65
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 : 31.25 mg/mL (78.78 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.5211 mL	12.6056 mL	25.2111 mL
		5 mM	0.5042 mL	2.5211 mL	5.0422 mL
		10 mM	0.2521 mL	1.2606 mL	2.5211 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (5.24 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.08 mg/mL (5.24 mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.24 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Vitamin D2 (Ergocalciferol), derived from plant sources or dietary supplements, could be used as supplement of Vitamin D ^[1] [2].
IC₅₀ & Target	Human Endogenous Metabolite
In Vivo	At sacrifice, after 5 weeks of treatment, chickens receiving omeprazole alone or omeprazole in combination with either restricted food intake or Ergocalciferol weighed 15-25% less (P < 0.01) than chickens given vehicle or receiving reduced amount of food ^[2] . Combined treatments of fasting and ergocalciferol show more deleterious effects on growth than fasting only or

ergocalciferol only and induced face anomalies^[3].

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

Animal Model:	83 chickens (White Leghorn), weighing 318 ± 9 g ^[2] .
Dosage:	250,000 IU/kg
Administration:	S.C. once daily.
Result:	Induced a long-lasting hypercalcemia in rat and mice and suppresses the expression of PTH mRNA in the rat.

CUSTOMER VALIDATION

- Proc Natl Acad Sci U S A. 2022 Apr 12;119(15):e2117004119.

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REFERENCES

[1]. Sagar U Nigwekar, et al. Ergocalciferol and cholecalciferol in CKD. Am J Kidney Dis. 2012 Jul;60(1):139-56.

[2]. R Gagnemo-Persson, et al. Chicken parathyroid hormone gene expression in response to gastrin, omeprazole, ergocalciferol, and restricted food intake. Calcif Tissue Int. 1997 Sep;61(3):210-5.

[3]. F Ariyuki, et al. Growth retardation induced in rat fetuses by maternal fasting and massive doses of ergocalciferol. J Nutr. 1987 Feb;117(2):342-8.

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