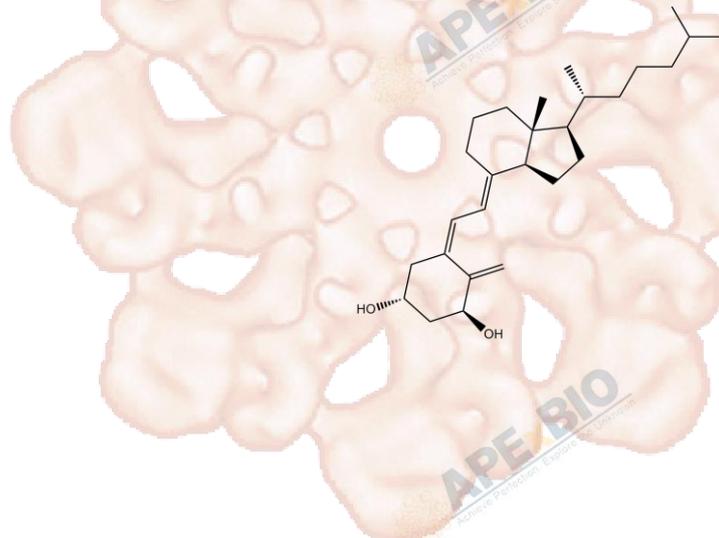


Product Data Sheet

Alfacalcidol

Cat. No.:	B2153
CAS No.:	41294-56-8
Formula:	C ₂₇ H ₄₄ O ₂
M.Wt:	400.65
Synonyms:	
Target:	Vitamin D Related
Pathway:	VD/VDR
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥20.05 mg/mL in DMSO; ≥21.6 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass Concentration	Mass		
			1mg	5mg	10mg
		1 mM	2.4959 mL	12.4797 mL	24.9594 mL
		5 mM	0.4992 mL	2.4959 mL	4.9919 mL
		10 mM	0.2496 mL	1.2480 mL	2.4959 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Bone resorption inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Preparation method:

In Vivo

Animal experiment

Animal models: ovariectomized rat model of osteoporosis

Dosage form: 0.05, 0.1, and 0.2 µg/kg; orally administered; five times a week for 12 weeks

Applications: In ovariectomized rat model of osteoporosis, Alfacalcidol inhibited osteoclastic

	bone resorption in a dose-dependent way and maintained or even stimulated bone formation. Alfacalcidol increased bone mineral density and improved mechanical strength more effectively than 17 β -estradiol.
Preparation method:	The solubility of this compound in DMSO is >20.1mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Shiraishi A1, Takeda S, Masaki T, Higuchi Y, Uchiyama Y, Kubodera N, Sato K, Ikeda K, Nakamura T, Matsumoto T, Ogata E. Alfacalcidol inhibits bone resorption and stimulates formation in an ovariectomized rat model of osteoporosis: distinct actions from estrogen. J Bone Miner Res. 2000 Apr;15(4):770-9.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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