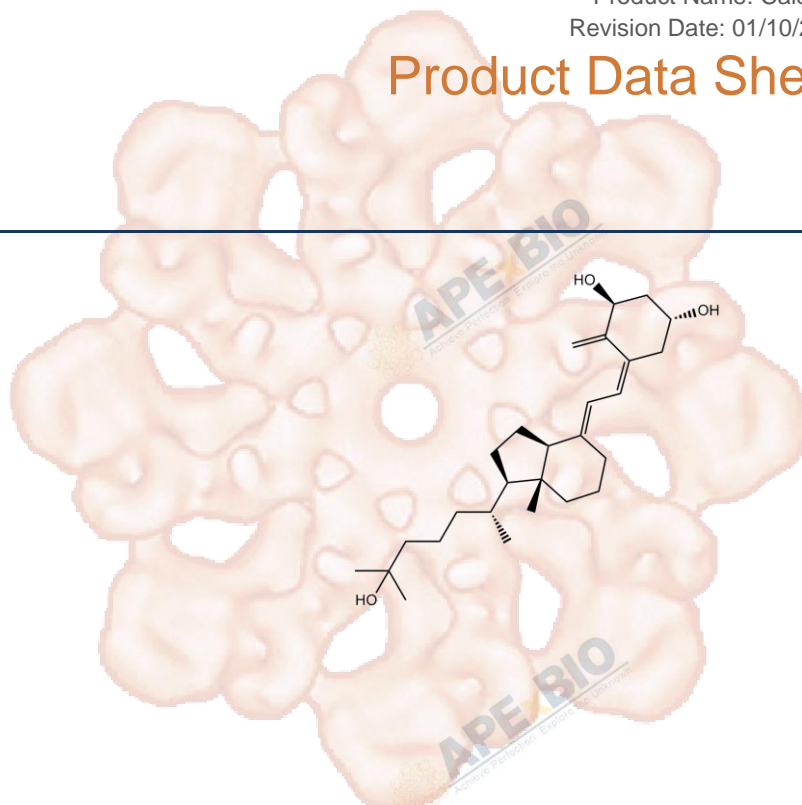


Product Data Sheet

Calcitriol

Cat. No.:	B2141
CAS No.:	32222-06-3
Formula:	C ₂₇ H ₄₄ O ₃
M.Wt:	416.64
Synonyms:	
Target:	Vitamin D Related
Pathway:	VD/VDR
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥20.83 mg/mL in DMSO; ≥43.5 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.4002 mL	12.0008 mL	24.0015 mL
	5 mM	0.4800 mL	2.4002 mL	4.8003 mL
	10 mM	0.2400 mL	1.2001 mL	2.4002 mL

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

Biological Activity

Shortsummary

Active metabolite of vitamin D₃

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Basal cell carcinoma (BCC) cell line ASZ001
Preparation method:	The solubility of this compound in DMSO is > 20.8mg/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.
Reacting conditions:	10 nM, 48 h

	Applications:	In BCC ASZ001 cells, calcitriol significantly inhibited the Hh-signaling pathway and activated the Vdr-signaling pathway. Calcitriol suppressed cell proliferation but had no effect on apoptosis for caspase 3/7 activity was unchanged.
In Vivo	Animal experiment	
	Dosage form:	0.25 µg/day, for 2 years
	Applications:	At 6, 12, and 24 months, A1C, C-peptide, and insulin requirement values had no difference between calcitriol and placebo groups. These results indicated that at the doses used, calcitriol was not able to protect β-cell function in subjects with recent-onset type 1 diabetes and high C-peptide.
	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]. Uhmann A, Niemann H, Lammering B, et al. Antitumoral effects of calcitriol in basal cell carcinomas involve inhibition of hedgehog signaling and induction of vitamin D receptor signaling and differentiation[J]. Molecular cancer therapeutics, 2011, 10(11): 2179-2188.
- [2]. Bizzarri C, Pitocco D, Napoli N, et al. No Protective Effect of Calcitriol on β-Cell Function in Recent-Onset Type 1 Diabetes[J]. Diabetes care, 2010, 33(9): 1962-1963.

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 APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term 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.

APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

