



Product Information

Product ID C0145

CAS No. 32222-06-3

Chemical Name (1 α ,3 β ,5 α ,7 β)-9,10-Secocholesta-5,7,10(19)-triene-1,3,25-triol

Synonym 1 α ,25-Dihydroxyvitamin D₃

Formula C₂₇H₄₄O₃

Formula Wt. 416.64

Melting Point 111-115°C

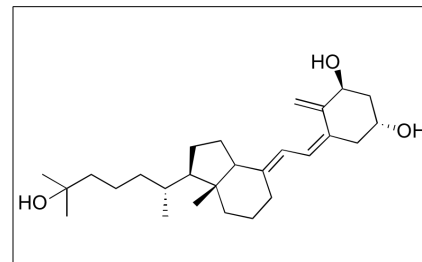
Purity ≥97%

Solubility Slightly soluble in ethanol, ethyl acetate. Soluble in DMSO.

Store Temp -80°C

Ship Temp Dry Ice

Description Calcitriol is the active form of vitamin D that binds to the vitamin D receptors (VDR), increasing absorption of dietary Ca²⁺. Calcitriol is produced in the kidney from prodrug forms of vitamin D such as cholecalciferol. Calcitriol is commercially used in dietary supplements to prevent osteoporosis; it exhibits anti-osteoporotic, immunomodulatory, anti-inflammatory, anti-diabetic, anticancer, and chemopreventive activities. In basal cell carcinoma cells, calcitriol decreases hedgehog (Hh) signaling, suppressing cancer progression. In other models, calcitriol stimulates differentiation of skin cells and inhibits skin cancer cell proliferation and tumor formation. Additionally, this compound decreases activation of toll-like receptors (TLRs), protecting against the development of type I diabetes.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
C0145	50 µg	\$218.00
C0145	5 x 50 µg	\$654.00
C0145	1 mg	\$697.60

References Albert B, Hahn H. Interaction of hedgehog and vitamin D signaling pathways in basal cell carcinomas. *Adv Exp Med Biol.* 2014;810:329-41. PMID: 25207374.

Bikle DD. The vitamin D receptor: a tumor suppressor in skin. *Adv Exp Med Biol.* 2014;810:282-302. PMID: 25207372.

Adamczak DM, Nowak JK, Frydrychowicz M, et al. The role of Toll-like receptors and vitamin D in diabetes mellitus type 1--a review. *Scand J Immunol.* 2014 Aug;80(2):75-84. PMID: 24845558.

Vojinovic J. Vitamin D receptor agonists' anti-inflammatory properties. *Ann N Y Acad Sci.* 2014 May;1317:47-56. PMID: 24754474.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.