



LKT Laboratories, Inc.

25-Hydroxyvitamin D3

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID H9815

CAS No. 19356-17-3

Chemical Name

Synonym Calcifediol, calcidiol, 25-hydroxycholecalciferol

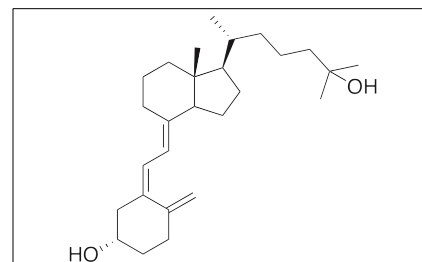
Formula $C_{27}H_{44}O_2$

Formula Wt. 400.64

Melting Point

Purity $\geq 98\%$

Solubility



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
H9815	1 mg	\$132.60
H9815	5 mg	\$592.30

Store Temp -20°C

Ship Temp Ambient

Description 25-hydroxyvitamin D3 (25-OH D3), or calcidiol/calcifediol, is a pro-hormone for calcitriol that restores bone mineralization in vitamin D-deficient models. 25-OH D3 is the major circulating metabolite of vitamin D3. Vitamin D signaling also regulates Ca^{2+} homeostasis. 25-OH D3 activates the vitamin D receptor and also regulates transcription of hormones such as parathyroid hormone (PTH). In vivo, 25-OH D3 exhibits anti-inflammatory activity, improving diabetic periodontitis; 25-OH D3 decreases levels of serum glucose, glycosylated hemoglobin, and TNF- α and downregulates expression of toll-like receptor 4 (TLR4), JAK/STAT, and NF- κB . This compound also displays anticancer activity, as it inhibits cell growth in prostate cancer cells.

References Wang Q, Li H, Xie H, et al. 25-Hydroxyvitamin D3 attenuates experimental periodontitis through downregulation of TLR4 and JAK1/STAT3 signaling in diabetic mice. *J Steroid Biochem Mol Biol.* 2013 May;135:43-50. PMID: 23333931.

Li H, Xie H, Fu M, et al. 25-hydroxyvitamin D3 ameliorates periodontitis by modulating the expression of inflammation-associated factors in diabetic mice. *Steroids.* 2013 Feb;78(2):115-20. PMID: 23138030.

Ritter CS, Brown AJ. Direct suppression of Pth gene expression by the vitamin D prohormones doxercalciferol and calcidiol requires the vitamin D receptor. *J Mol Endocrinol.* 2011 Feb 15;46(2):63-6. PMID: 21169421.

Tuohimaa P, Golovko O, Kalueff A, et al. Calcidiol and prostate cancer. *J Steroid Biochem Mol Biol.* 2005 Feb;93(2-5):183-90. PMID: 15860261.

van Leeuwen JP, van Driel M, van den Bemd GJ, et al. Vitamin D control of osteoblast function and bone extracellular matrix mineralization. *Crit Rev Eukaryot Gene Expr.* 2001;11(1-3):199-226. PMID: 11693961.

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