

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

## SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic in



# PRODUCT INFORMATION



## **Eldecalcitol**

Item No. 33713

CAS Registry No.: 104121-92-8

Formal Name: 2-(3-hydroxypropoxy)-4-methylene-5-[(2E)-2-

> [(1R,3aS,7aR)-octahydro-1-[(1R)-5-hydroxy-1,5-dimethylhexyl]-7a-methyl-4H-inden-4ylidene]ethylidene]-1,3-cyclohexanediol

Synonyms: ED-71,  $1\alpha,25$ -dihydroxy- $2\beta$ -(3-

hydroxypropoxy) Vitamin D<sub>3</sub>

 $C_{30}H_{50}O_{5}$ MF: FW: 490.7 **Purity:** ≥98% Supplied as: A solid -20°C Storage: Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

#### **Laboratory Procedures**

Eldecalcitol is supplied as a solid. A stock solution may be made by dissolving the eldecalcitol in the solvent of choice, which should be purged with an inert gas. Eldecalcitol is slightly soluble in methanol and acetonitrile.

Eldecalcitol is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

#### Description

Eldecalcitol is a derivative of the vitamin D<sub>3</sub> receptor agonist and vitamin D<sub>3</sub> active metabolite calcitriol (Item No. 71820).<sup>1,2</sup> It induces calcium release in an in vitro bone mobilization assay using isolated mouse calvaria when used at a concentration of 10 nM.<sup>1</sup> Eldecalcitol (50 nM) reduces LPS-induced pyroptosis and increases in hydrogen peroxide and protein levels of the NOD-like receptor protein 3 (NLRP3) inflammasome, caspase-1, and IL-1 $\beta$  in primary human gingival fibroblasts. Eldecalcitol (0.4 nM) induces apoptosis and cell cycle arrest at the  $G_0/G_1$  phase in, and inhibits migration of, SCC-15 and CAL 27 squamous cell carcinoma cells and decreases tumor volume in an SCC-15 mouse xenograft model when administered at a dose of  $0.5 \mu g/kg$  twice per week.<sup>4</sup> Eldecalcitol ( $0.3 \mu g/kg$ ) decreases serum parathyroid hormone (PTH) levels and increases serum calcium levels, bone mineral density, and bone strength in a cynomolgus monkey model of osteoporosis induced by ovariectomy.<sup>2</sup> Formulations containing eldecalcitol have been used in the treatment of osteoporosis.

### References

- 1. Okano, T., Tsugawa, N., Masuda, S., et al. Biochem. Biophys. Res. Commun. 163(3), 1444-1449 (1989).
- 2. Smith, S.Y., Doyle, N., Boyer, M., et al. Bone 57(1), 116-122 (2013).
- 3. Huang, C., Zhang, C., Yang, P., et al. Drug Des. Devel. Ther. 14, 4901-4913 (2020).
- 4. Lu, Y., Kou, Y., Gao, Y., et al. Oral Dis. 29(2), 615-627 (2023).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information Buyer agrees to purchase the material can be found on our website.

Copyright Cayman Chemical Company, 11/06/2023

#### **CAYMAN CHEMICAL**

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.**CAYMANCHEM**.COM