Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Seocalcitol

Catalog No: tcsc0398

Available Sizes

Size: 1mg

Size: 5mg

Specifications

CAS No:
134404-52-7

Formula:
$C_{30}H_{46}O_3$

Pathway:
Vitamin D Related

Target:
VD/VDR

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 50 mg/mL (109.97 mM)

Alternative Names:
EB 1089

Observed Molecular Weight:
454.68

Product Description

Seocalcitol is a vitamin D analog, binds **vitamin D receptor** protein from human osteosarcoma MG-63 cells with $\mathbf{K_d}$ of 0.27 nM.

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IC50 & Target: Kd: 0.27 nM (vitamin D receptor)[1]

In Vitro: Seocalcitol (EB 1089) is a stimulators of osteoclast recruitment in murine bone marrow cultures, with EC_{50} at 0.1 nM. Seocalcitol stimulates bone resorption with an estimated EC_{50} at 0.03 nM[1]. Seocalcitol (EB 1089) elicites a dose-dependent induction of 24-hydroxylase mRNA in the kidney (EC_{50}=0.4±0.13). In the kidney, K_d values for Seocalcitol is 0.48±0.04 nM. However, in the intestine, the K_d for Seocalcitol is 1.43±0.19 nM)[2]. Seocalcitol (0.1-10 nM) induces cell differentiation in a dosedependent manner. A higher differentiating activity is observed for 1 nM Seocalcitol (EB 1089) than for 1 nM VD_3.

In Vivo: Seocalcitol (EB1089), a synthetic vitamin D analog, exhibits reduced hypercalcemic activity relative to $1,25(OH)_2VD_3$. In another study, long-term intraperitoneal (IP) administration of Seocalcitol at a dose of 0.5 μg/kg body weight every other day in C3H/Sy mice exertes a very strong inhibitory effect on hepatocellular carcinoma (HCC) development[4]. Seocalcitol (EB 1089) is administered daily to postnatal rats from 4 to 12 days of age (P4 to P12) by intraperitoneal injection at either 0.38 or 1.25 μg/kg body weight (BW)/day. Only the highest dose of Seocalcitol (1.25 μg/kg BW) causes a significant reduction in weight gain when administered alone or in conjunction with Dexamethasone, all-trans retinoic acid (RA), or retinoic acid[5].