



## **Seocalcitol**

**Catalog No: tcsc0398** 

Available Sizes
Size: 1mg
Size: 5mg
Specifications
CAS No: 134404-52-7
Formula: C <sub>30</sub> H <sub>46</sub> O <sub>3</sub>
Pathway: Vitamin D Related
<b>Target:</b> VD/VDR
Purity / Grade: >98%
<b>Solubility:</b> 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.



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  $\mu$ g/kg body weight every other day in C3H/Sy mice exertes a very strong inhibitory effect on hepatocellular carcinoma (HCC) development<sup>[4]</sup>. 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  $\mu$ g/kg body weight (BW)/day. Only the highest dose of Seocalcitol (1.25  $\mu$ g/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<sup>[5]</sup>.

All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!