

**Product Name:** EB 1089

**Catalog No.:** 3993

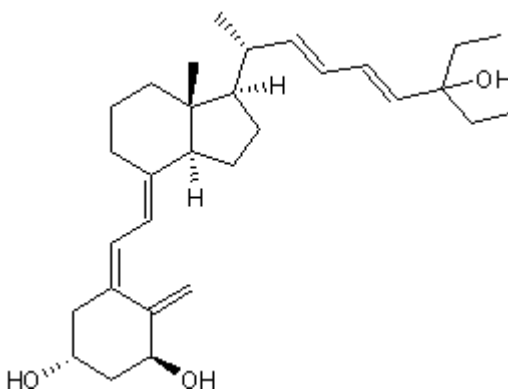
**Batch No.:** 2

CAS Number: 134404-52-7

IUPAC Name: (1*R*,3*S*,5*Z*)-5-[(2*E*)-2-[(1*R*,3*aS*,7*aR*)-1-[(1*R*,2*E*,4*E*)-6-Ethyl-6-hydroxy-1-methyl-2,4-octadien-1-yl]-octahydro-7*α*-methyl-4*H*-inden-4-ylidene]ethylidene]-4-methylene-1,3-cyclohexanediol

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>30</sub> H <sub>46</sub> O <sub>3</sub>
<b>Batch Molecular Weight:</b>	454.68
<b>Physical Appearance:</b>	White lyophilised solid
<b>Solubility:</b>	Soluble in DMSO Soluble in ethanol
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 99.7% purity
<b>Mass Spectrum:</b>	Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 134404-52-7

IUPAC Name: (1R,3S,5Z)-5-[(2E)-2-[(1R,3aS,7aR)-1-[(1R,2E,4E)-6-Ethyl-6-hydroxy-1-methyl-2,4-octadien-1-yl]-octahydro-7 $\alpha$ -methyl-4H-inden-4-ylidene]ethylidene]-4-methylene-1,3-cyclohexanediol

**Description:**

Vitamin D receptor (VDR) agonist; analog of calcitriol (Cat. No. 2551). Exhibits anti-tumor and anti-proliferative activity with reduced hypercalcemic effects. 60 times more potent in inhibiting MCF-7 cell growth in vitro; also shown to induce autophagy in MCF-7 cells. Reverses the effects of parathyroid hormone-related protein (PTHrP).

**Physical and Chemical Properties:**

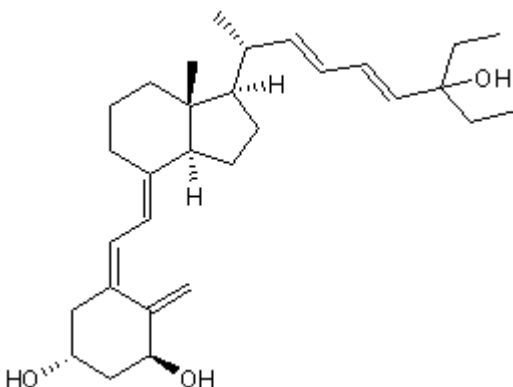
Batch Molecular Formula: C<sub>30</sub>H<sub>46</sub>O<sub>3</sub>

Batch Molecular Weight: 454.68

Physical Appearance: White lyophilised solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C. This product is packaged under an inert atmosphere.

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

Soluble in DMSO  
Soluble in ethanol

**CAUTION** - This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Abdaimi et al** (1999) Reversal of hypercalcaemia with the vitamin D analogue EB1089 in a human model of squamous cancer. *Cancer Res.* **59** 3325.

**Hoyer-Hansen et al** (2005) Vitamin D analog EB1089 triggers dramatic lysosomal changes and Beclin 1-mediated autophagic cell death. *Cell Death Differ.* **12** 1297. PMID: 15905882.

**Ormerod et al** (2008) The calcitriol analogue EB1089 impairs alveolarization and induces localized regions of increased fibroblast density in neonatal rat lung. *Exp.Lung.Rs.* **34** 155.

**Lu et al** (2008) Vitamin D<sub>3</sub> analogue EB1089 inhibits the proliferation of human laryngeal squamous carcinoma cells via p57. *Mol.Cancer Ther.* **7** 1268. PMID: 18483314.

**Bhatia et al** (2009) EB1089 inhibits the parathyroid hormone-related protein-enhanced bone metastasis and xenograft growth of human prostate cancer cells. *Mol.Cancer Ther.* **8** 1787. PMID: 19584236.

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