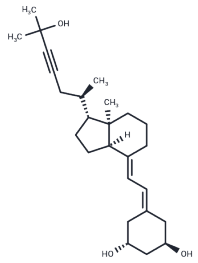
# Data Sheet (Cat.No.T24166)

TargetMol

## Inecalcitol

### Chemical Properties



CAS No. : 163217-09-2

Formula: C26H40O3

Molecular Weight: 400.59

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

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|---|---|
| Description | Inecalcitol is a unique vitamin D3 analog that induces apoptosis and has anticancer activity. It is an orally active vitamin D receptor agonist with a Kd of 0.53 nM. |
| Targets(IC50) | Apoptosis,Vitamin |
| In vitro | **METHODS**: SCC cells were treated with Inecalcitol (TX 522) (0.0008, 0.003, 0.012, 0.05, 0.2, 0.8, 3.2, 12.5 nM, 48 hours) and cell viability was measured by MTT assay.<br>**RESULTS** Inecalcitol inhibited the growth of SCC cells in a dose-dependent manner with an IC50 of 0.38 nM. [1]<br>**METHODS**: SCC cells were treated with Inecalcitol (TX 522) (1,10 nM), and Western Blot analysis was used to investigate the mechanism of inecalcitol-induced apoptosis.<br>**RESULTS** Inecalcitol-treated SCC cells resulted in increased activity of caspase 8, 10, and 3, indicating that inecalcitol promotes apoptosis by activating the extrinsic pathway mediated by caspase 8/10 and caspase 3. [1] |
| In vivo | **METHODS**: Inecalcitol (TX 522) (1.3 mg/kg, intraperitoneal injection, 3 times a week) was used to treat mice bearing LNCaP cell tumor xenografts. Tumor size was measured and calculated, and blood was collected to measure serum calcium levels.<br>**RESULTS** Inecalcitol-treated mice bearing tumor xenografts had a significant reduction in tumor size. The half-life of plasma Inecalcitol was 18.3 minutes. [2] |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 55 mg/mL (137.3 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.4963 mL | 12.4816 mL | 24.9632 mL |
| 5 mM | 0.4993 mL | 2.4963 mL | 4.9926 mL |
| 10 mM | 0.2496 mL | 1.2482 mL | 2.4963 mL |
| 50 mM | 0.0499 mL | 0.2496 mL | 0.4993 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Ma Y, et al. Inecalcitol, an analog of 1,25D3, displays enhanced antitumor activity through the induction of apoptosis in a squamous cell carcinoma model system. Cell Cycle. 2013 Mar 1;12(5):743-52.
Okamoto R,et al. Inecalcitol, an analog of 1α,25(OH)(2) D(3) , induces growth arrest of androgen-dependent prostate cancer cells. Int J Cancer. 2012 May 15;130(10):2464-73.
Okamoto R, et al. Inecalcitol, an analog of 1α,25(OH)(2) D(3) , induces growth arrest of androgen-dependent prostate cancer cells. Int J Cancer. 2012 May 15;130(10):2464-73.
Verlinden L,et al. Interaction of two novel 14-epivitamin D3 analogs with vitamin D3 receptor-retinoid X receptor heterodimers on vitamin D3 responsive elements. J Bone Miner Res. 2001 Apr;16(4):625-38.