

# **Certificate of Analysis**

Print Date: Oct 3rd 2018

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Product Name: 22-Oxacalcitriol Catalog No.: 4160 Batch No.: 2

CAS Number: 103909-75-7

IUPAC Name: (1R,3S,5Z)-4-Methylene-5-[(2E)-2-[(1S,3aS,7aS)-octahydro-1-[(1S)-1-(3-hydroxy-3-methylbutoxy)ethyl]-7a-methyl-

4H-inden-4-ylidene]ethylidene]-1,3-cyclohexanediol

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{26}H_{42}O_4$ Batch Molecular Weight:418.61Physical Appearance:White solid

**Solubility:** Soluble in DMSO

Soluble in ethanol

Storage: Store at -20°C

**Batch Molecular Structure:** 

# 2. ANALYTICAL DATA

**HPLC:** Shows 96% purity



# **Product Information**

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#### **Description:**

Non-calcemic vitamin  $D_3$  (Cat. No. 4156) analog and VDR ligand. Suppresses parathyroid hormone (PTH) mRNA expression in vitro and in vivo. Exhibits similar effects to calcitriol (Cat. No. 2551) in osteoblast-like cells. Inhibits tumor growth of osteosarcoma in vitro in combination with all-trans retinoic acid.

# **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>26</sub>H<sub>42</sub>O<sub>4</sub> Batch Molecular Weight: 418.61 Physical Appearance: White solid

Minimum Purity: >95%

#### **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

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:

**Barroga** *et al* (2000) Inhibitory effects of 22-oxa-calcitriol and all-trans retinoic acid on the growth of a canine osteosarcoma derived cell-line in vivo and its pulmonary metastasis in vivo. Res.Vet.Sci. *68* 79. PMID: 10684763.

**Monier-Faugere** *et al* (1999) 22-Oxacalcitriol suppresses secondary hyperparathyroidism without inducing low bone turnover in dogs with renal failure. Kidney Int. **55** 821. PMID: 10027919.