

Certificate of Analysis

Print Date: Oct 3rd 2018

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Product Name: Tacalcitol Catalog No.: 4157 Batch No.: 2

CAS Number: 57333-96-7

IUPAC Name: $(1\alpha,3\beta,5Z,7E,24R)$ -9,10-Secocholesta-5,7,10(19)-triene-1,3,24-triol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{27}H_{44}O_3$.Batch Molecular Weight:416.64Physical Appearance:White solid

Solubility: Soluble in DMSO

Soluble in ethanol

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.5% purity **Mass Spectrum:** Consistent with structure



Product Information

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Description:

Synthetic vitamin D_3 (Cat. No. 4156) analog. Promotes normal bone development by regulating calcium. Modulates immunological and inflammatory processes; induces nerve growth factor production in epidermal keratinocytes.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₇H₄₄O₃. Batch Molecular Weight: 416.64 Physical Appearance: White 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

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:

Rostowska-Nadolska *et al* (2010) Vitamin D derivatives: calcitriol and tacalcitol inhibits interleukin-6 and interleukin-8 expression in human nasal polyp fibroblasts. Adv.Med.Sci. *55* 86. PMID: 20439185.

Fukuoka *et al* (2001) Tacalcitol, an active vitamin D₃, induces nerve growth factor in human epidermal keratinocytes. Skin Pharmacol.Appl.Skin Physiol. *14* 226. PMID: 11464105.