

Product Data Sheet

Product Name: Calcifediol-D6

Cat. No.: GC35582

Chemical Properties

Cas. No. 78782-98-6

SMILES O[C@@H](CCC/C=C)CC1=C\C=C2[C@@](CC[C@@H]3[C@@H](CCCC(C([2H]))([2H])
[2H])(C([2H])([2H])[2H])O)C([H])[C@]3(C)CCC\2

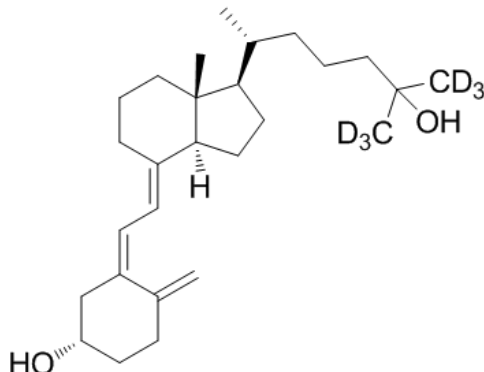
Formula $C_{27}H_{38}D_6O_2$ M.Wt 406.67

Solubility Soluble in DMSO Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Calcifediol-D6 is the deuterated form of Calcifediol(25-hydroxy Vitamin D₃), which is a prehormone that is produced in the liver by hydroxylation of vitamin D₃ (cholecalciferol) by the enzyme cholecalciferol 25-hydroxylase IC₅₀ value:Target: This metabolite is being measured by physicians worldwide to determine a patient's vitamin d status. Calcifediol is then converted in the kidneys (by the enzyme 25(OH)D-1α-hydroxylase) into calcitriol (1,25-(OH)₂D₃), a secosteroid hormone that is the active form of vitamin D. It can also be converted into 24-hydroxycalcidiol in the kidneys via 24-

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hydroxylation.

[1]. Teitelbaum SL. Calcifediol (25-hydroxyvitamin D3) in the treatment of uremic bone disease. Ann Intern Med. 1981 Mar;94(3):404-5. [2]. Kleinman LM, Letteri JM, Asad SN, Ellis KJ, Cohn SH. Effects of calcifediol on calcified tissue in uremia. Arch Intern Med. 1978 May 15;138 Spec No:864-5. [3]. Recker R, Schoenfeld P, Letteri J, Slatopolsky E, Goldsmith R, Brickman A. The efficacy of calcifediol in renal osteodystrophy. Arch Intern Med. 1978 May 15;138 Spec No:857-63. [4]. Teitelbaum SL, Bone JM, Stein PM, Gilden JJ, Bates M, Boisseau VC, Avioli LV. Calcifediol in chronic renal insufficiency. Skeletal response. JAMA. 1976 Jan 12;235(2):164-7.

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