

Product Name	: Calcipotriol
Synonyms	: MC 903, Calcipotriene
Cat No.	: M22492
CAS Number	: 112965-21-6
Molecular Formula	: C ₂₇ H ₄₀ O ₃
Formula Weight	: 412.6
Chemical Name	: —
Description	<p>Calcipotriol is a synthetic VitD3 analogue. Which has a high affinity for the vitamin D receptor. Calcipotriol slightly enhances (0.2 nM) IL-8 mRNA expression or has no effect (2-20 nM), when NHEK cells are not stimulated with IL-17A or IL-22. The addition of IL-17A and IL-22 markedly increased the mRNA expression of IL-8. This enhanced IL-8 mRNA expression is suppressed by Calcipotriol at 2, 20 and 40 nM in a dose dependent manner. Treatment of natural killer (NK) cells with drugs modulates their expression of NK cytotoxicity receptors or KIR. Human NK cells are pre-treated with 100, 10 or 1 ng/mL of 1,25(OH)₂D₃, Calcipotriol or FTY720 for 4 h. All three concentrations of Calcipotriol, 1,25(OH)₂D₃ and FTY720 significantly up-regulate the expression of NKp30 on the surface of NK cells after 4 h incubation. Compare with placebo (linear regression model), the weight gain is significantly smaller in the groups treated with Diclofenac plus Calcipotriol (p=0.018) and Diclofenac plus DFMO plus Calcipotriol (p=0.002). Survival is equally distributed between the groups. One out of the 32 animals in each of the groups has died, except for the Diclofenac plus DFMO plus Calcipotriol group, where all animals survived.</p>
Pathway	: Metabolic Enzyme/Protease
Target	: Vitamin
Receptor	: Vitamin D receptor
Solubility	: DMSO: 100 mg/mL (242.37 mM); Ethanol: 50 mg/mL (121.18 mM; Need ultrasonic)
SMILES	: <chem>[H][C@@]1(CC[C@]2([H])[C@]1(C)CCC2=C/C=C1/C[C@@H](O)C[C@H](O)C1=C)[C@H](C)C=C[C@@H](O)C1CC1</chem>
Storage	: (-20°C)
Stability	: ≥ 2 years
Reference	:

I. Sakabe JI, et al. Calcipotriol Increases hCAP18 mRNA Expression but Inhibits Extracellular LL37 Peptide Production in IL-17/IL-22-stimulated Normal Human Epidermal Keratinocytes. Acta Derm Venereol. 2014 Sep;94(5):512-6.