
Product Data Sheet

Product Name: MC 1046
Cat. No.: GC16982

Chemical Properties

Cas. No. 126860-83-1

Chemical Name (E,4R)-4-[(1R,4E,7aR)-4-[(2Z)-2-[(3S,5R)-3,5-dihydroxy-2-methylidenecyclohexylidene]ethylidene]-7a-methyl-2,3,3a,5,6,7-hexahydro-1H-inden-1-yl]-1-cyclopropylpent-2-en-1-one

SMILES CC(C=CC(=O)C1CC1)C2CCC3C2(CCCC3=CC=C4CC(CC(C4=C)O)O)C

Formula $C_{27}H_{38}O_3$ M.Wt 410.59

Solubility Soluble in DMSO Storage $4^{\circ}C$, protect from light, stored under nitrogen, unstable in solution, ready to use.

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

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

Structure

Background

MC 903 has been found to be a potent inducer of cell differentiation and to inhibit proliferation and DNA-synthesis of cells possessing the receptor for $1,25(OH)_2D_3$. MC 1046 is the metabolite of calcipotriol (MC 903), which is a novel analogue of the physiologically active metabolite of vitamin D_3 .

In vitro: The biological effects on the U937 cells of the two major metabolites of MC 903 (MC 1046 and MC 1080) were investigated. Results showed that the metabolites had effects that were more than 100 times weaker than those of the parent compound [1].

In vivo: MC 903 is a novel analogue of the physiologically active metabolite of $1,25(OH)_2D_3$. Unlike the similar effects on cell proliferation and cell differentiation in vitro, MC 903 has 100-200 times less effect on calcium metabolism in vivo. Moreover, rat study indicates that the effect of MC 903 on proliferative disorders, its fast elimination

Caution: Product has not been fully validated for medical applications. For research use only.

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and the formation of inactive metabolites makes MC 903 suitable for topical treatment of psoriasis [1].

Clinical trial: No clinical data are available for MC 1046 and its analogues.

Reference:

[1] Kissmeyer AM, Binderup L. Calcipotriol (MC 903): pharmacokinetics in rats and biological activities of metabolites. A comparative study with 1,25(OH)₂D₃. *Biochem Pharmacol.* 1991;41(11):1601-6.

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