CB1151

Cat. No.: HY-100219

CAS No.: 182369-28-4

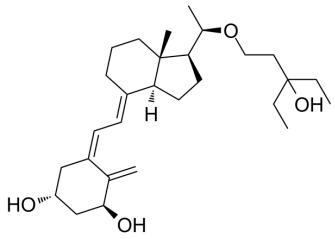
Molecular Formula: $C_{28}H_{46}O_4$

Molecular Weight: 446.66

Target: VD/VDR

Pathway: Vitamin D Related

Storage: 4°C, protect from light, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (223.88 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2388 mL	11.1942 mL	22.3884 mL
	5 mM	0.4478 mL	2.2388 mL	4.4777 mL
	10 mM	0.2239 mL	1.1194 mL	2.2388 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

CB1151 is a 20-epi analogue of 1,25 dihydroxyvitamin D3 (VD) with potent anti-tumor effects. CB1151 inhibits MCF-7 cell growth with an IC_{50} value of 0.82 nM[1].

IC_{50} & Target

IC50: 0.82 nM[1]

In Vitro

CB1151 (0-100 nM; 5 days) inhibits MCF-7 cells growth, this cell proliferation is accessed by [^{3}H]-thymidine incorporation, exhibits an IC_{50} value of 0.82 nM[1].

CB1151 (0-100 nM; 40 hours) exhibits activation of the IP9-type VD response element with a EC_{50} of 1.2 nM, the activation of IP9-type VD response elements shows a good correlation with inhibition of proliferation than the activation of DR3-type elements (EC_{50}=3.2nM) in MCF-7 cells transfected with the CAT reporter[1].

CB1151 shows a functional dissociation constant (K_{df}) value of 3.6 nM. The ligand concentration that provides 50% of protease-resistant VDR fragment is defined by K_{df}, this is different from that of the traditional dissociation constant (K_d)[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	MCF-7 cell
Concentration:	0 nM; 0.1nM; 0.5nM; 0.8nM; 1nM; 5nM; 10 nM
Incubation Time:	5 days
Result:	Inhibits MCF-7 cells growth.

REFERENCES

[1]. Mørk Hansen C, et al. The potent anti-proliferative effect of 20-epi analogues of 1,25 dihydroxyvitamin D3 in human breast-cancer MCF-7 cells is related to promoter selectivity.Int J Cancer. 1996 Sep 4;67(5):739-42.

[2]. Nayeri S, et al. High-affinity nuclear receptor binding of 20-epi analogues of 1,25-dihydroxyvitamin D3 correlates well with gene activation.J Cell Biochem. 1996 Sep 1;62(3):325-33.

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