

Product Data Sheet

Product Name: ZK 159222

Cat. No.: GC48271

Chemical Properties

Cas. No. 156965-15-0

SMILES C=C1/C(C[C@@H](O)C[C@@H]1O)=C\C=C2CCC[C@@]3(C)[C@@]/2([H])CC[C@]3([H])[C@H](C)/C=C/[C@@H](O)C4(CC4)C(OCCCC)=O

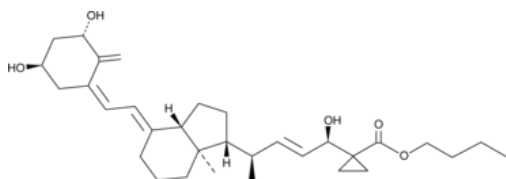
Formula $C_{32}H_{48}O_5$ M.Wt 512.7

Solubility DMSO : 100 mg/mL (195.04 mM; Need ultrasonic) Storage 4°C, protect from light, stored under nitrogen

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

ZK 159222 is an antagonist of the vitamin D receptor (VDR).^{1,2} It stabilizes the VDR in an antagonistic conformation that prevents interaction with coactivator proteins.³ ZK 159222 inhibits VDR-mediated target gene activation when used at concentrations of 300 and 1,000 nM in reporter assays. Preincubation of preadipocytes with ZK 159222 (0.01 and 1 μM) decreases the secretion of IL-1β, IL-6, IL-8, CCL2, and RANTES induced by macrophage-conditioned medium (MacCM).⁴ It also decreases the secretion of these cytokines in preadipocytes prestimulated with MacCM and decreases MacCM-induced phosphorylation of p44/42 and p38 MAPK in preadipocytes.

1.Herdick, M., Steinmeyer, A., and Carlberg, C. Antagonistic action of a 25-carboxylic ester analogue of 1α,25-dihydroxyvitamin D₃ is mediated by a lack of ligand-induced vitamin D receptor interaction with coactivators. *J. Biol. Chem.* 275(22):16506-16512(2000) 2.Herdick, M., Steinmeyer, A., and

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

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Carlberg, C. Carboxylic ester antagonists of $1\alpha,25$ -dihydroxyvitamin D₃ show cell-specific actions *Chem. Biol.* 7(11)885-894(2000) 3. Bury, Y., Steinmeyer, A., and Carlberg, C. Structure activity relationship of carboxylic ester antagonists of the vitamin D₃ receptor *Mol. Pharmacol.* 58(5)1067-1074(2000) 4. Zhu, J., and Wilding, J.P.H. The $1\alpha,25(\text{OH})_2\text{D}_3$ analogs ZK159222 and ZK191784 show anti-inflammatory properties in macrophage-induced preadipocytes via modulating the NF- κ B and MAPK signaling *Diabetes Metab. Syndr. Obes.* 131715-1724(2020)

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