

PRODUCT INFORMATION

ZK 159222

Item No. 9001925



CAS Registry No.: 156965-15-0

Formal Name: 1-[(1R,2E,4R)-4-[(1R,3aS,4E,7aR)-4-[(2Z)-2-[(3S,5R)-3,5-dihydroxy-2-methylenecyclohexylidene]ethylidene]octahydro-7a-methyl-1H-inden-1-yl]-1-hydroxy-2-penten-1-yl]-cyclopropanecarboxylic acid, butyl ester

MF: C₃₂H₄₈O₅

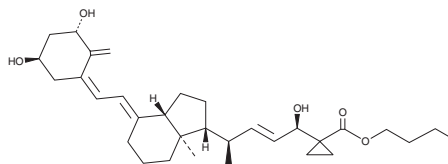
FW: 512.7

Purity: ≥95%

Supplied as: A solid

Storage: -80°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ZK 159222 is supplied as a solid. A stock solution may be made by dissolving the ZK 159222 in the solvent of choice, which should be purged with an inert gas. ZK 159222 is slightly soluble in chloroform and methanol.

Description

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.

References

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 Carlberg, C. Carboxylic ester antagonists of 1α,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 1α,25(OH)₂D₃ analogs ZK159222 and ZK191784 show anti-inflammatory properties in macrophage-induced preadipocytes via modulating the NF-κB and MAPK signaling. *Diabetes Metab. Syndr. Obes.* **13**, 1715-1724 (2020).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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