

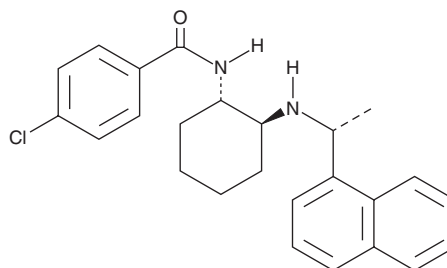
PRODUCT INFORMATION



Calhex 231

Item No. 17268

CAS Registry No.: 652973-93-8
Formal Name: 4-chloro-N-[(1S,2S)-2-[[[(1R)-1-(1-naphthalenyl)ethyl]amino]cyclohexyl]-benzamide
MF: C₂₅H₂₇ClN₂O
FW: 407.0
Purity: ≥98%
UV/Vis.: λ_{max}: 224 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Calhex 231 is supplied as a crystalline solid. A stock solution may be made by dissolving the Calhex 231 in the solvent of choice. Calhex 231 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of Calhex 231 in these solvents is approximately 25, 20, and 15 mg/ml, respectively.

Calhex 231 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Calhex 231 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Calhex 231 has a solubility of approximately 0.25 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Calcium-sensing receptor (CaSR) is a G protein-coupled receptor that is involved in calcium homeostasis.^{1,2} Calhex 231 is a negative allosteric modulator of CaSR that blocks calcium-mediated activation (IC₅₀ = 0.39 μM).³ It also attenuates the activation of CaSR by calcimimetics, like calindol (Item No. 17575) and R-568.^{4,5} Calhex 231 is commonly used to study the role of CaSR in various cell types, including stem cells.⁴⁻⁶

References

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2. Filopanti, M., Corbetta, S., Barbieri, A.M., et al. Pharmacology of the calcium sensing receptor. *Clin. Cases Miner. Bone Metab.* **10(3)**, 162-165 (2013).
3. Petrel, C., Kessler, A., Maslah, F., et al. Modeling and mutagenesis of the binding site of Calhex 231, a novel negative allosteric modulator of the extracellular Ca²⁺-sensing receptor. *J. Biol. Chem.* **278(49)**, 49487-49494 (2015).
4. Weston, A.H., Absi, M., Ward, D.T., et al. Evidence in favor of a calcium-sensing receptor in arterial endothelial cells: Studies with calindol and Calhex 231. *Circ. Res.* **97(4)**, 391-398 (2005).
5. Di Tomo, P., Pipino, C., Lanuti, P., et al. Calcium sensing receptor expression in ovine amniotic fluid mesenchymal stem cells and the potential role of R-568 during osteogenic differentiation. *PLoS One* **8(9)**, 1-12 (2013).
6. Lembrechts, R., Brouns, I., Schnorbusch, K., et al. Functional expression of the multimodal extracellular calcium-sensing receptor in pulmonary neuroendocrine cells. *J. Cell Sci.* **126(19)**, 4490-4501 (2013).

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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