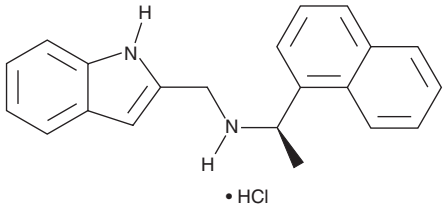
PRODUCT INFORMATION

Calindol (hydrochloride)

Item No. 17575

CAS Registry No.:	729610-18-8
Formal Name:	N-[(1R)-1-(1-naphthalenyl)ethyl]-1H-indole-2-methanamine, monohydrochloride
MF:	$C_{21}H_{20}N_2 \bullet HCl$
FW:	336.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 224, 272, 282 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

Calindol (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the calindol (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Calindol (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of calindol (hydrochloride) in ethanol is approximately 15 mg/ml and approximately 50 mg/ml in DMSO and DMF.

Calindol (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, calindol (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Calindol (hydrochloride) has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Calindol is a phenylalkylamine calcimimetic that facilitates the activation of the calcium-sensing receptor (CaSR), a G protein-coupled receptor that triggers phosphatidylinositol (PI)-intracellular calcium signaling and, in some cell types, cell proliferation.[1] It potently stimulates PI hydrolysis and proliferation through human CaSR (pEC_{50} values are 6.9 and 7.4, respectively) in the presence of calcium.[2] Calindol directly interacts with CaSR in transmembrane domains and triggers PI hydrolysis less effectively in the absence of calcium, indicating that it is an allosteric modulator that cooperates with calcium to activate the CaSR.[2-4] Calindol is used to study the properties and distribution of CaSR in different types of cells and tissues.[4,5]

References

1. Kessler, A., Faure, H., Petrel, C., *et al. Bioorg. Med. Chem. Lett.* **14(12)**, 3345-3349 (2004).
2. Ma, J.N., Owens, M., Gustafsson, M., *et al. J. Pharmacol. Exp. Ther.* **337(1)**, 275-284 (2011).
3. Petrel, C., Kessler, A., Dauban, P., *et al. J. Biol. Chem.* **279(18)**, 18990-18997 (2004).
4. Ray, K., Tisdale, J., Dodd, R.H., *et al. J. Biol. Chem.* **280(44)**, 37013-37020 (2005).
5. Weston, A.H., Absi, M., Ward, D.T., *et al. Circ. Res.* **97(4)**, 391-398 (2005).

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