Product Data Sheet

Product Name: Calindol (hydrochloride)
Cat. No.: GC12620

Chemical Properties

Cas. No.	729610-18-8		
Chemical Name	N-[(1R)-1-(1-naphthalenyl)ethyl]-1H-indole-2-methanamine, monohydrochloride		
SMILES	C[C@H](C1=C(C=CC=C2)C2=CC=C1)NCC3=CC4=CC=CC=C4N3.Cl		
Formula	$C_{21}H_{20}N_2$ • HCl	M.Wt	336.9
Solubility	≤15mg/ml in ethanol;50mg/ml in DMSO;50mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Calindol (hydrochloride)		

Background

Calindol is an activator of the calcium-sensing receptor (CaSR).

The extracellular calciumsensing receptor (CaSR), a G protein-coupled receptor (GPCR), senses extracellular calcium[Ca2+]e and regulates calciumion homeostasis. The CaSR has a long amino terminal tail typical of family 3 of GPCRs including the metabotropic glutamate receptors, the c-aminobutyric acid B receptor and certain pheromone and taste receptors. CaSR cDNA has been cloned fromsuch tissues as the parathyroid, thyroid, kidney as well as brain. The CaSR at the surface can detect and respond to small changes of circulating [Ca2+]e in the particular case of the parathyroid cell.

In vitro: Previous study found that calindol could display improved calcimimetic activity compared to its N2-(2-chloro-(or 4-fluoro-)benzyl)-N1-(1-(1-naphthyl)ethyl)-3-phenylpropane-1,2-diamine analogs as well as stereoselectivity. In the presence of 2 mM Ca(2+), calindol was able to stimulate [(3)H]inositol phosphates accumulation with an

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EC(50) of 1.0+/-0.1 or 0.31+/-0.05 μM in cells expressing the rat or the human CaSR, respectively. Therefore, such calcimimetic activities of this novel compound were shown to be because of a specific interaction with the CaSR [1].

In vivo: Up to now, there is no animal in vivo data reported.

Clinical trial: So far, no clinical study has been conducted.

Reference:
[1] Kessler, A. ,Faure, H.,Petrel, C., et al. N2-benzyl-N1-(1-(1-naphthyl)ethyl)-3-phenylpropane-1,2-diamines and conformationally restrained indole analogues: Development of calindol as a new calcimimetic acting at the calcium sensing receptor. Bioorganic & Medicinal Chemistry Letters 14(12), 3345-3349 (2004).

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