

NPS-2143

Catalog No: tcsc0319



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

284035-33-2

Formula:

$C_{24}H_{25}ClN_2O_2$

Pathway:

GPCR/G Protein

Target:

CaSR

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

SB 262470A

Observed Molecular Weight:

408.92

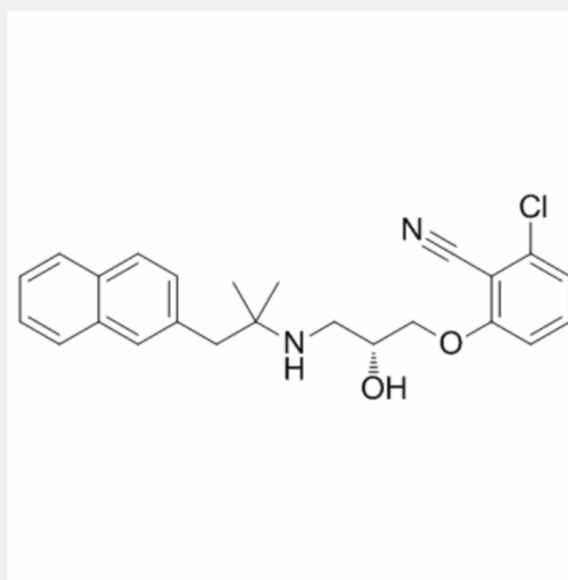
Product Description

NPS-2143 is a novel potent and selective antagonist of **Ca²⁺ receptor** with **IC₅₀** of 43 nM.

IC50 & Target: IC50: 43 nM (Ca²⁺ receptor)

In Vitro: NPS-2143 blocks increases in cytoplasmic Ca²⁺ concentrations with IC₅₀ of 43 nM elicited by activating the Ca²⁺ receptor in HEK 293 cells expressing the human Ca²⁺ receptor. NPS-2143 stimulates parathyroid hormone (PTH) secretion from bovine parathyroid cells with EC₅₀ of 41 nM. Moreover, NPS 214 also blocks the inhibitory effects of calcimimetic NPS R-467 on PTH secretion from bovine parathyroid cells and the inhibitory effects of extracellular Ca²⁺ on isoproterenol-stimulated increases in cyclic AMP formation^[1]. In HEK-293 cells transiently expressing hCaSRs, NPS-2143 significantly suppresses the kokumi taste by effectively inhibiting the activity of both GSH and γ-Glu-Val-Gly^[3]. A recent study shows that NPS-2143 treatment suppresses low molecular weight fractions of azuki hydrolysate-induced cholecystokinin (CCK) secretion in CaSR-transfected HEK 293 cells^[4].

In Vivo: NPS-2143 results in a rapid 4- to 5-fold increase in plasma PTH levels and also a transient increase in plasma Ca²⁺ levels^[1] in rats. In normotensive rats, NPS-2143 administration (1 mg/kg, i.v.) markedly increases mean arterial blood pressure (MAP) in the presence of parathyroid glands^[2].



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