Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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

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Product Description

NPS-2143 is a novel potent and selective antagonist of **Ca^{2+} receptor** with **IC_{50}** of 43 nM.

IC50 & Target: IC50: 43 nM (Ca^{2+} receptor)

In Vitro: NPS-2143 blocks increases in cytoplasmic Ca^{2+} concentrations with IC_{50} of 43 nM elicited by activating the Ca^{2+} receptor in HEK 293 cells expressing the human Ca^{2+} receptor. NPS-2143 stimulates parathyroid hormone (PTH) secretion from bovine parathyroid cells with EC_{50} 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 Ca^{2+} 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 Ca^{2+} 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].