Web: www.taiclone.com
Tel: +886-2-2735-9682
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Brexpiprazole

Catalog No: tcsc2108

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Specifications

CAS No:
913611-97-9

Formula:
$C_{25}H_{27}N_3O_2S$

Pathway:
GPCR/G Protein;Neuronal Signaling;Neuronal Signaling;GPCR/G Protein

Target:
Dopamine Receptor;Dopamine Receptor;5-HT Receptor;5-HT Receptor

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 48 mg/mL (110.71 mM)

Alternative Names:
OPC-34712

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Observed Molecular Weight:
433.57

Product Description

Brexpiprazole is a partial agonist of human **5-HT1A** and **dopamine receptor** with **K_i**s of 0.12 nM and 0.3 nM, respectively. Brexpiprazole is also a **5-HT2A** receptor antagonist with a **K_i** of 0.47 nM.

IC50 & Target: Ki: 0.12 nM (5-HT1A), 0.3 nM (D2L), 0.47 nM (5-HT2A)[1]

In Vitro: Brexpiprazole, a novel serotonin-dopamine activity modulator: A role for serotonin 5-HT1A and 5-HT2A receptors. Brexpiprazole also shows potent antagonist activity at human nor adrenergic α1B (K_i=0.17 nM) and α2C receptors (K_i=0.59 nM). Brexpiprazole significantly potentiates nerve growth factor (NGF)-induced neurite outgrowth in PC12 cells, in a concentration dependent manner. Brexpiprazole (1 μM) increases the number of cells with neurites in PC12 cells. Treatment with Brexpiprazole (0.001, 0.01, 0.1 or 1.0 μM) in conjunction with NGF (2.5 ng/mL) increases the number of cells with neurites, in a concentration-dependent manner[1].

In Vivo: Brexpiprazole (0.01, 0.03, 0.1 mg/kg, p.o.) significantly ameliorates dizocilpine-induced social recognition deficits, without sedation or a reduction of exploratory behavior. In addition, Brexpiprazole alone has no effect on social recognition in untreated controlmice. By contrast, neither Risperidone(0.03 mg/kg, p.o.) nor Olanzapine (0.03 mg/kg, p.o.) alters Dizocilpine induced social recognition deficits. Finally,the effect of Brexpiprazole on Dizocilpine-induced social recognition deficits is antagonized by WAY-100,635. These results suggest that Brexpiprazole can improve Dizocilpine-induced social recognition deficits via 5-HT1A receptor activation in mice[2].