

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

Observed Molecular Weight:

433.57

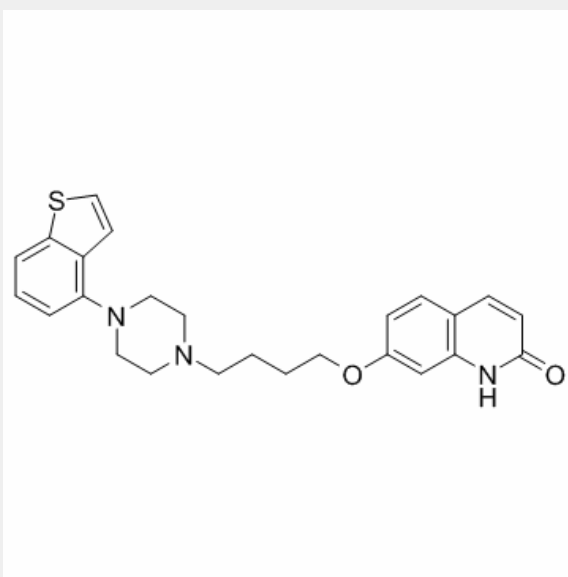
Product Description

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

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

In Vitro: Brexiprazole, a novel serotonin-dopamine activity modulator: A role for serotonin 5-HT1A and 5-HT2A receptors. Brexiprazole also shows potent antagonist activity at human noradrenergic $\alpha1B$ ($K_i=0.17$ nM) and $\alpha2C$ receptors ($K_i=0.59$ nM). Brexiprazole significantly potentiates nerve growth factor (NGF)-induced neurite outgrowth in PC12 cells, in a concentration dependent manner. Brexiprazole (1 μ M) increases the number of cells with neurites in PC12 cells. Treatment with Brexiprazole (0.001, 0.01, 0.1 or 1.0 μ M) in conjunction with NGF (2.5 ng/mL) increases the number of cells with neurites, in a concentration-dependent manner^[1].

In Vivo: Brexiprazole (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, Brexiprazole alone has no effect on social recognition in untreated control mice. 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 Brexiprazole on Dizocilpine-induced social recognition deficits is antagonized by WAY-100,635. These results suggest that Brexiprazole can improve Dizocilpine-induced social recognition deficits via 5-HT1A receptor activation in mice^[2].



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