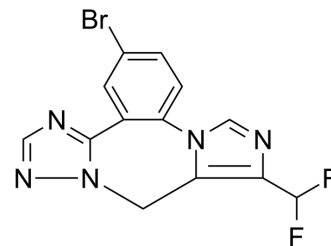


RO 4938581

Cat. No.:	HY-107489		
CAS No.:	883093-10-5		
Molecular Formula:	C ₁₃ H ₈ BrF ₂ N ₅		
Molecular Weight:	352.14		
Target:	GABA Receptor		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (283.98 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.8398 mL	14.1989 mL	28.3978 mL
5 mM	0.5680 mL	2.8398 mL	5.6796 mL
10 mM	0.2840 mL	1.4199 mL	2.8398 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

RO 4938581 is a potent and selective GABA_A α5 inverse agonist, with a K_i of 4.6 nM for GABA_A α5β3γ2a, and shows a lower affinity at α1β3γ2a, α2β3γ2a, α3β3γ2a (K_i, 174, 185, 80 nM, respectively); RO 4938581 is used in the research of cognitive dysfunction.

IC₅₀ & Target

K_i: 4.6 nM (GABA_A α5β3γ2a), 174 nM (GABA_A α1β3γ2a), 185 nM (GABA_A α2β3γ2a), 80 nM (GABA_A α3β3γ2a)^[1]

In Vitro

RO 4938581 is a potent and selective GABA_A α5 inverse agonist, with a K_i of 4.6 nM for GABA_A α5β3γ2a, and shows a lower affinity at α1β3γ2a, α2β3γ2a, α3β3γ2a (K_i, 174, 185, 80 nM, respectively)^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

RO 4938581 (0.3-1 mg/kg, p.o.) reverses a working memory impairment induced by scopolamine the delayed match to position (DMTP) task and a spatial learning impairment induced by diazepam (RO 4938581; 1-10 mg/kg, po)^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Knust H, et al. The discovery and unique pharmacological profile of RO4938581 and RO4882224 as potent and selective GABAA alpha5 inverse agonists for the treatment of cognitive dysfunction. *Bioorg Med Chem Lett*. 2009 Oct 15;19(20):5940-4.

Caution: Product has not been fully validated for medical applications. For research use only.

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