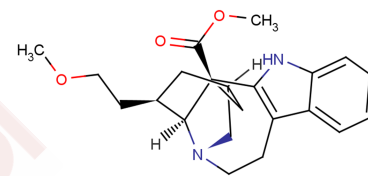


Zolunicant

Chemical Properties

CAS No. :	188125-42-0
Formula:	C ₂₂ H ₂₈ N ₂ O ₃
Molecular Weight:	368.47
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Zolunicant (MM-110) is a potent nicotinic $\alpha 3\beta 4$ receptor inhibitor with an IC ₅₀ of 0.90 μ M, showing promise in combating addiction. It effectively reduces self-administration of addictive agents such as morphine, cocaine, methamphetamine, nicotine, and ethanol in rat models, indicating its potential as a treatment for various forms of drug abuse [1]. Additionally, Zolunicant exhibits strong leishmanicidal activity against <i>Leishmania amazonensis</i> , expanding its therapeutic prospects [2].
Targets(IC50)	AChR,Parasite
In vitro	Zolunicant (18-MC; 0.01-100 μ M) inhibits nicotinic $\alpha 3\beta 4$ receptors, demonstrating an IC ₅₀ of 0.90 μ M [1]. Additionally, Zolunicant (18-MCOR; 0-20 μ g/ml; 24h) exhibits anti-amastigote activity against <i>L. amazonensis</i> -infected macrophages, with a Cell Viability Assay revealing a significant reduction in amastigote survival—73%, 84%, and 92% decreases at concentrations of 1, 10, and 20 μ g/ml, respectively [2].
In vivo	Zolunicant (18-MC; intravenous administration; 0-20 μ g/day for 14 days) effectively reduces morphine self-administration in naïve female Long-Evans derived rats by inhibiting $\alpha 3\beta 4$ nicotinic receptors within the habenulo-interpeduncular pathway. The compound, administered directly into the medial habenula and interpeduncular nucleus, demonstrated significant decreases in morphine intake, evidencing its potential as a therapeutic agent in addiction treatments (Interpeduncular nucleus: F(5,29) = 6.89, P < 0.0001; Medial habenula: F(4,28) = 3.07, P < 0.03) [3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7139 mL	13.5696 mL	27.1393 mL
5 mM	0.5428 mL	2.7139 mL	5.4279 mL
10 mM	0.2714 mL	1.357 mL	2.7139 mL
50 mM	0.0543 mL	0.2714 mL	0.5428 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481