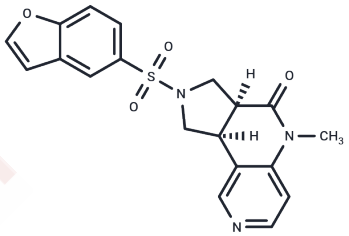
Data Sheet (Cat.No.T61655)

TargetMol

AM-1488

Chemical Properties



CAS No. : 2079895-60-4

Formula: C19H17N3O4S

Molecular Weight: 383.42

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	AM1488 is a potent, orally active glycine receptor (GlyR) potentiator with an effective concentration (hGlyRα3 EC50) of 0.45 μM [1] [2].
Targets(IC50)	Others
In vitro	AM-1488 enhances the activity of native glycine receptors (GlyRs) in mouse spinal-cord neurons, predominantly expressing GlyRα1(β) and GlyRα3(β). Using a Cell Viability Assay on this cell line with a concentration of 0.5 μM and an incubation time of 10 minutes, it was observed that AM-1488 significantly increased the peak current triggered by 20 μM glycine in all tested cells, elevating it from an average of 50.8 picoamperes (pA) to 222.2 pA.
In vivo	AM-1488 treatment, administered via oral gavage at a dose of 20 mg/kg for one time, significantly reversed mechanical allodynia caused by nerve injury in a mouse model of neuropathic pain. This effect was achieved without the complications of sedation or motor side effects. In an animal model of spared nerve injury (SNI), this treatment facilitated a remarkable 94% reduction in tactile allodynia. Additionally, the unbound brain concentration of AM-1488 was found to be 2.8- and 1.6-fold higher than the EC50 values for mouse GlyRα1 and GlyRα3, respectively. In contrast, administration of the same dose in naive mice did not show significant differences when compared to those treated with a vehicle, indicating the specificity of AM-1488's effect on neuropathic pain without affecting normal sensory thresholds.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6081 mL	13.0405 mL	26.0811 mL
5 mM	0.5216 mL	2.6081 mL	5.2162 mL
10 mM	0.2608 mL	1.3041 mL	2.6081 mL
50 mM	0.0522 mL	0.2608 mL	0.5216 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.