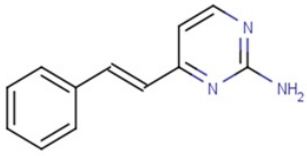
Data Sheet (Cat.No.T7494)

TargetMol
A DRUG SCREENING EXPERT

TCN 238

Chemical Properties



CAS No.:	125404-04-8
Formula:	C12H11N3
Molecular Weight:	197.24
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	TCN 238 is an orally bioavailable positive allosteric modulator of the metabotropic glutamate receptor 4 (mGluR4with an EC50 of 1 μM).
Targets(IC_{50})	mGluR: None
In vitro	TCN238 has a greater than 30-fold selectivity for mGluR4 over mGluR5 using human recombinant receptors in CHO-K1 cells[1].
In vivo	TCN238 has no activity at the adenosine A2A, serotonin 5-HT1A, or α2A-adrenergic receptors at concentrations up to 10 μM. In a haloperidol-induced catalepsy rat model of Parkinson's disease, it dose-dependently reduces catalepsy with an ED50 of approximately 1 mg/kg. TCN 238 administration in rats leads to downregulation of the mGluR4 gene, GRM4, in the hippocampus and the gene for the GABAA receptor α subunit, GABRA1, in the frontal cortex without affecting hippocampal-dependent memory[1].

Solubility Information

Solubility	DMSO: 150 mg/mL (760.49 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.07 mL	25.35 mL	50.7 mL
5 mM	1.014 mL	5.07 mL	10.14 mL
10 mM	0.507 mL	2.535 mL	5.07 mL
50 mM	0.101 mL	0.507 mL	1.014 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Pershina E V , Arkhipov V I . Subacute activation of mGlu4 receptors causes the feedback inhibition of its gene expression in rat brain[J]. Life Sciences, 2016, 153:50-54.

2. East S P , Bamford S , Dietz M G A , et al. An orally bioavailable positive allosteric modulator of the mGlu4 receptor with efficacy in an animal model of motor dysfunction[J]. Bioorganic & Medicinal Chemistry Letters, 2010, 20(16):4901-4905.

Inhibitors · Natural Compounds · Compound Libraries

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