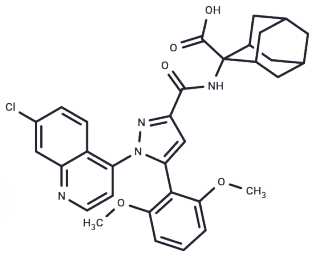
Data Sheet (Cat.No.T16034)

TargetMol

Meclinertant

Chemical Properties



CAS No. : 146362-70-1

Formula: C32H31ClN4O5

Molecular Weight: 587.07

Storage: Store at low temperature
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	Meclinertant (SR 48692) is a small-molecule compound and a neurotensin receptor-1 (NTSR1) antagonist with good selectivity and cell permeability. This compound can be used to study neurotensin signaling pathways and related neurological diseases, and serves as a potential diagnostic and therapeutic probe targeting NTSR1-positive tumors.
Targets(IC50)	Neurotensin Receptor
In vitro	**Methods**: Using extracellular recording techniques on rat dorsal raphe nucleus brain slices, the samples were pretreated with Meclinertant (SR 48692) (100 nM-1 μM) for 20 minutes to 2 hours. **Results**: Meclinertant (SR 48692) caused a concentration-dependent rightward shift in the concentration-response curve for NT, selectively blocking the excitation of serotonergic neurons induced by NT (1 μM) without affecting the response to phenylephrine. [1]
In vivo	**Methods**: In a mouse turning model induced by unilateral striatal injection of neurotensin (10 pg), Meclinertant (SR 48692) (80 μg/kg, oral, Tween 80 solvent) was pretreated for 30 min; in a rat hyperlocomotion model induced by amphetamine with neurotensin injection into the nucleus accumbens, Meclinertant (SR 48692) (0.1-1 mg/kg, oral) was pretreated. **Results**: Meclinertant (SR 48692) significantly antagonized turning behavior in mice, and dose-dependently reversed the inhibitory effect of neurotensin on amphetamine-induced hyperlocomotion.[2]

Solubility Information

Solubility	DMSO: 20 mg/mL (34.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7034 mL	8.5169 mL	17.0337 mL
5 mM	0.3407 mL	1.7034 mL	3.4067 mL
10 mM	0.1703 mL	0.8517 mL	1.7034 mL
50 mM	0.0341 mL	0.1703 mL	0.3407 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.

Reference

Jolas T,et al. Neurotensin and the serotonergic system. Prog Neurobiol. 1997 Aug;52(6):455-68.
Gully D, et al. Neuropharmacological profile of non-peptide neurotensin antagonists. Fundam Clin Pharmacol. 1995;9(6):513-21.
Felszeghy K, et al. Neurotensin receptor antagonist administered during cocaine withdrawal decreases locomotor sensitization and conditioned place preference. Neuropsychopharmacology. 2007 Dec;32(12):2601-10.