SSR504734

Cat. No.: HY-10715

CAS No.: 615571-23-8

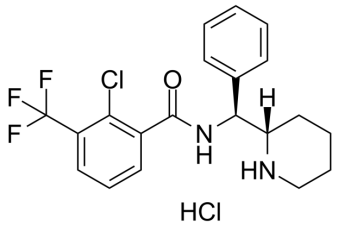
Molecular Formula: $C_{20}H_{21}Cl_2F_3N_2O$

Molecular Weight: 433.29

Target: GlyT

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (230.79 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3079 mL	11.5396 mL	23.0792 mL
	5 mM	0.4616 mL	2.3079 mL	4.6158 mL
	10 mM	0.2308 mL	1.1540 mL	2.3079 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.77 mM); Suspended solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.77 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SSR504734 is an orally active, selective and reversible inhibitor of human, rat, and mouse GlyT1 (IC_{50}=18, 15, and 38 nM, respectively). SSR504734 shows anti-schizophrenia, anti-anxiety and anti-depression activities[1].

IC_{50} & Target

hGlyT1	rGlyT1
18 nM (IC_{50})	15 nM (IC_{50})

In Vitro

SSR504734 (15 nM-86 μM; 10 min) inhibits glycine uptake in human SK-N-MC and rat C6 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	Human neuroblastoma (SK-N-MC) and rat astrocytoma (C6) cells
Concentration:	15 nM-86 μM
Incubation Time:	10 min
Result:	Showed IC_{50} values of 18 and 15 nM for human SK-N-MC and rat C6 cells, respectively.

In Vivo

SSR504734 (i.p. and p.o.; 1-100 mg/kg; once) treatment shows good oral bioavailability[1].
SSR504734 (i.p.; 30 mg/kg; once) induces a rapid and significant decrease of specific glycine uptake[1].
SSR504734 (i.p.; 10 mg/kg; once) increases extracellular levels of Glycine in the prefrontal cortex (PFC) of freely moving rats [1].

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

Animal Model:	Male Sprague-Dawley rats[1]
Dosage:	1-100 mg/kg
Administration:	Intraperitoneal injection and oral gavage.; 1-100 mg/kg; once
Result:	Showed ID_{50} values of 5.0 and 4.6 mg/kg for i.p. and p.o. treatments, respectively.

Animal Model:	Male Sprague-Dawley rats[1]
Dosage:	30 mg/kg
Administration:	Intraperitoneal injection; 30 mg/kg; once
Result:	Maintained at about 80% inhibition from 1 to 7 h after administration.

Animal Model:	Male Sprague-Dawley rats[1]
Dosage:	10 mg/kg
Administration:	Intraperitoneal injection; 10 mg/kg; once
Result:	Produced a rapid and sustained increase in PFC extracellular levels of glycine.

REFERENCES

[1]. Ronan Depoortère, et al. Neurochemical, electrophysiological and pharmacological profiles of the selective inhibitor of the glycine transporter-1 SSR504734, a potential new type of antipsychotic. Neuropsychopharmacology. 2005 Nov;30(11):1963-85.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA