ALX-5407 hydrochloride

Cat. No.: HY-10711A

CAS No.: 200006-08-2

Molecular Formula: $C_{24}H_{25}ClFNO_3$

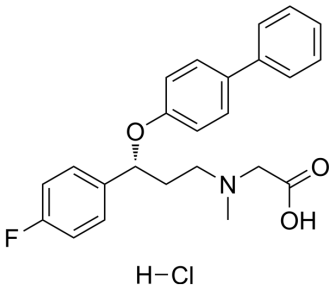
Molecular Weight: 429.91

Target: GlyT

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (232.61 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3261 mL	11.6303 mL	23.2607 mL
	5 mM	0.4652 mL	2.3261 mL	4.6521 mL
	10 mM	0.2326 mL	1.1630 mL	2.3261 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 (5.82 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (5.82 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.82 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ALX-5407 ((R)-NFPS) hydrochloride is a selective and orally active glycine transporter GlyT1 inhibitor with an IC_{50} value of 3 nM. ALX-5407 hydrochloride can be used the research of N-methyl-D-aspartate-receptor function and schizophrenia[1].

In Vitro

ALX-5407 hydrochloride (0-1 mM) GlyT1- or GlyT2-dependently inhibits glycine transport and blocks [^{3}H]glycine uptake in rat brain and QT6-1C cells with an IC_{50} value of 3 nM[1].

ALX-5407 hydrochloride (50 nM) shows slow dissociation kinetics in QT6-1C cells[1].

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

In Vivo

ALX-5407 hydrochloride (1 and 10 mg/kg; oral administration, once) increases free glycine levels in rat prefrontal cortex[1].

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

REFERENCES

[1]. Atkinson BN, et al. ALX 5407: a potent, selective inhibitor of the hGlyT1 glycine transporter. Mol Pharmacol. 2001 Dec;60(6):1414-20.

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