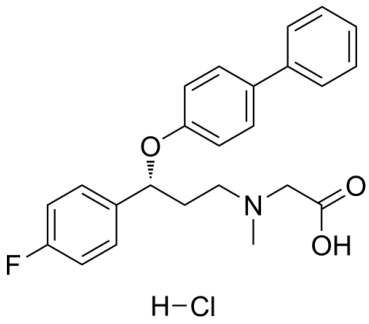
Data Sheet

Product Name:	ALX-5407 (hydrochloride)
Cat. No.:	CS-0016149
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
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

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

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.

CAIndexNames:

Glycine, N-[(3R)-3-([1,1'-biphenyl]-4-yloxy)-3-(4-fluorophenyl)propyl]-N-methyl-, hydrochloride (9CI)

SMILES:

FC1=CC=C([C@H](OC2=CC=C(C3=CC=CC=C3)C=C2)CCN(C)CC(O)=O)C=C1.[H]Cl

Caution: Product has not been fully validated for medical applications. For research use only.

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