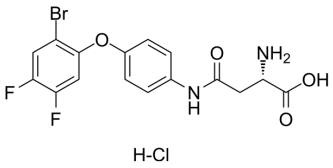
WAY-213613 hydrochloride

Cat. No.:	HY-107523A
CAS No.:	2450268-84-3
Molecular Formula:	$C_{16}H_{14}BrClF_2N_2O_4$
Molecular Weight:	451.65
Target:	EAAT
Pathway:	Membrane Transporter/Ion Channel
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 : 50 mg/mL (110.71 mM; warming and heat to 80°C)

H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	2.2141 mL	11.0705 mL	22.1410 mL
	5 mM	0.4428 mL	2.2141 mL	4.4282 mL
	10 mM	0.2214 mL	1.1071 mL	2.2141 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 (5.54 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.54 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.54 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

WAY-213613 (hydrochloride) is a potent and selective human EAAT2 inhibitor. WAY-213613 has potent EAAT2 inhibitory activity with an IC_{50} value of 85 nM. WAY-213613 can be used for the research of central nervous system[1].

IC_{50} & Target

EAAT2

In Vitro

WAY-213613 (hydrochloride) (0-100 μM) has inhibitory activity for human EAAT1, EAAT2 and EAAT3 subtype with IC_{50} values of 5004 nM, 85 nM and 3787 nM, respectively[1].

??WAY-213613 (3, 30, 300 nM) has the inhibitory effect on synaptosomal L-[^{3}H] glutamate uptake with K_i values of 15 nM, 41

nM and 55 nM in the presence of 3, 30 and 300 nM, respectively[1].
WAY-213613 (0-100 μM) produces a concentration-dependent block of glutamate-induced currents in EAAT1-, EAAT2- orEAAT3-injected oocytes, with IC_{50} values of 48, 0.13 and 4.0 μM, respectively[1].
WAY-213613 (0.5–50 μM) exhibits good selectivity over ionotropic receptors and EAAT2 and potent activity toward blocking NMDA-stimulated responses[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Commun. 2022 Jun 9;13(1):3329.
- Ann Transl Med. 2020 Jun;8(11):691.

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REFERENCES

[1]. Dunlop J, et al. Characterization of novel aryl-ether, biaryl, and fluorene aspartic acid and diaminopropionic acid analogs as potent inhibitors of the high-affinity glutamate transporter EAAT2. Mol Pharmacol. 2005 Oct;68(4):974-82. Epub 2005 Jul 13.

[2]. Simmons DA, et al. A small molecule p75NTR ligand, LM11A-31, reverses cholinergic neurite dystrophy in Alzheimer's disease mouse models with mid- to late-stage disease progression. PLoS One. 2014 Aug 25;9(8):e102136.

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