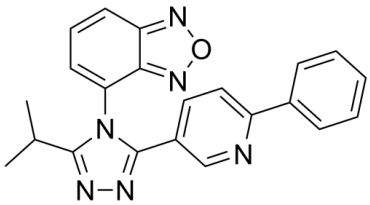
Data Sheet

Product Name:	ASP2535
Cat. No.:	CS-0033040
CAS No.:	374886-51-8
Molecular Formula:	$C_{22}H_{18}N_6O$
Molecular Weight:	382.42
Target:	GlyT
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

ASP2535 is a potent, orally bioavailable, selective, brain permeable and centrally-active **glycine transporter-1 (GlyT1)** inhibitor. ASP2535 can improve cognitive impairment in animal models of schizophrenia and Alzheimer's disease[1]. IC50 & Target: GlyT1[1] ***In Vitro:*** ASP2535 potently inhibits rat GlyT1 (IC_{50}=92 nM) with 50-fold selectivity over rat glycine transporter-2 (GlyT2) in vitro[1]. ***In Vivo:*** ASP2535 (0.3-3 mg/kg; p.o) attenuates working memory deficit in MK-801-treated mice and visual learning deficit in neonatally phencyclidine (PCP)-treated mice[1].
ASP2535 (1-3 mg/kg, p.o.) also improves the PCP-induced deficit in prepulse inhibition in rats[1].

References:

[1]. Harada K, et al. A novel glycine transporter-1 (GlyT1) inhibitor, ASP2535 (4-[3-isopropyl-5-(6-phenyl-3-pyridyl)-4H-1,2,4-triazol-4-yl]-2,1,3-benzoxadiazole), improves cognition in animal models of cognitive impairment in schizophrenia and Alzheimer's disease. Eur J Pharmacol. 2012 Jun 15;685(1-3):59-69.

CAIndexNames:

2,1,3-Benzoxadiazole, 4-[3-(1-methylethyl)-5-(6-phenyl-3-pyridinyl)-4H-1,2,4-triazol-4-yl]-

SMILES:

CC(C1=NN=C(C2=CC=C(C3=CC=CC=C3)N=C2)N1C4=CC=CC5=NON=C54)C

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

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