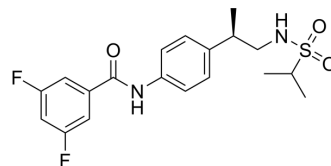


LY450108

Cat. No.:	HY-10935		
CAS No.:	376594-67-1		
Molecular Formula:	C ₁₉ H ₂₂ F ₂ N ₂ O ₃ S		
Molecular Weight:	396.45		
Target:	iGluR		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (126.12 mM)
 H₂O : < 0.1 mg/mL (insoluble)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
	Concentration	Mass	Mass	Mass
1 mM	2.5224 mL	12.6119 mL	25.2239 mL	
5 mM	0.5045 mL	2.5224 mL	5.0448 mL	
10 mM	0.2522 mL	1.2612 mL	2.5224 mL	

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (6.31 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (6.31 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (6.31 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LY450108 is a potent AMPA receptor potentiator. LY450108 has the potential for depression and Parkinson's disease research^{[1][2][3][4]}.

In Vitro

AMPA receptors mediate most of the excitatory neurotransmission and play a key role in synaptic plasticity in the mammalian central nervous system (CNS). Recent evidence has shown that in addition to modulating fast synaptic plasticity

and memory processes, AMPA receptor potentiators alter downstream signalling pathways and may thereby have utility in other CNS disorders.

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

CUSTOMER VALIDATION

- Behav Brain Res. 2022 Feb 22;424:113813.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Simon E Ward¹, Benjamin D Bax, Mark Harries. Challenges for and current status of research into positive modulators of AMPA receptors. *British Journal of Pharmacology*. 2010,160(2):181-190.
- [2]. O'Neill MJ, Witkin JM. AMPA receptor potentiators: application for depression and Parkinson's disease. *Curr Drug Targets*. 2007 May;8(5):603-20.
- [3]. Jhee SS, Chappell AS, Zarotsky V, et al. Multiple-dose plasma pharmacokinetic and safety study of LY450108 and LY451395 (AMPA receptor potentiators) and their concentration in cerebrospinal fluid in healthy human subjects. *J Clin Pharmacol*. 2006 Apr;46(4):424-32.
- [4]. Douglas A. Schober, Martin B. Gill, Hong Yu, et al. Transmembrane AMPA Receptor Regulatory Proteins and Cornichon-2 Allosterically Regulate AMPA Receptor Antagonists and Potentiators. *The Journal of Biological Chemistry*, 286, 13134-13142.
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Caution: Product has not been fully validated for medical applications. For research use only.

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