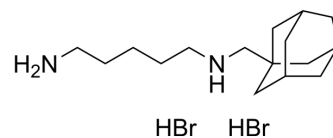


IEM-1754

Cat. No.:	HY-100547
CAS No.:	162831-31-4
Molecular Formula:	C ₁₆ H ₃₂ Br ₂ N ₂
Molecular Weight:	412.25
Target:	iGluR
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 (242.57 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		2.4257 mL	12.1286 mL	24.2571 mL
		5 mM		0.4851 mL	2.4257 mL	4.8514 mL
		10 mM		0.2426 mL	1.2129 mL	2.4257 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.25 mg/mL (3.03 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.25 mg/mL (3.03 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (3.03 mM); Clear solution 					

BIOLOGICAL ACTIVITY

Description	IEM-1754, a dicationic adamantane derivative, is a potent blocker of open channels of native ionotropic glutamate receptors including quisqualate-sensitive receptors in insect muscles, NMDAR in cultured rat cortical neurons, and AMPAR in freshly isolated hippocampal cells. IEM-1754 shows anticonvulsant potency in vivo ^{[1][2]} .
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REFERENCES

[1]. Tikhonov DB, et al. Voltage-dependent block of native AMPA receptor channels by dicationic compounds. Br J Pharmacol. 2000 Jan;129(2):265-74.

[2]. Lukomskaia Nla, et al. [Comparison of the anticonvulsant activity of organic mono- and di-cations and their potential to inhibit NMDA and AMPA glutamate receptors]. Ross Fiziol Zh Im I M Sechenova. 2002 Sep;88(9):1161-71. Russian.

[3]. D B Tikhonov, et al. Voltage-dependent block of native AMPA receptor channels by dicationic compounds. Br J Pharmacol. 2000 Jan;129(2):265-74.

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

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