CaV1.3 antagonist-1

Cat. No.: HY-134542

CAS No.: 1391385-57-1

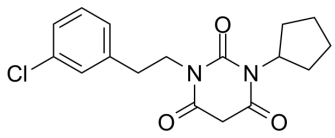
Molecular Formula: $C_{17}H_{19}ClN_2O_3$

Molecular Weight: 334.8

Target: Calcium Channel

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (298.69 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9869 mL	14.9343 mL	29.8686 mL
	5 mM	0.5974 mL	2.9869 mL	5.9737 mL
	10 mM	0.2987 mL	1.4934 mL	2.9869 mL

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

BIOLOGICAL ACTIVITY

Description

CaV1.3 antagonist-1 is a potent and highly selective $Ca_V1.3$ L-type calcium channel (LTCC) antagonist with an IC_{50} of 1.7 μM. CaV1.3 antagonist-1 inhibits $Ca_V1.3$ LTCC >600-fold more potently than $Ca_V1.2$ LTCC. CaV1.3 antagonist-1, a cyclopentyl derivative, has the potential for Parkinson's disease research[1].

IC_{50} & Target

$Ca_V1.3$
1.7 μM (IC_{50})

In Vitro

CaV1.3 antagonist-1 (Compound 8; 5 μM) exhibits 31.2% and 4.4% inhibition for $Ca_V1.3$ and $Ca_V1.2$ channel current in HEK293 cells, respectively. This correlates with the results of the FLIPR assay[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Soosung Kang, et al. CaV1.3-selective L-type calcium channel antagonists as potential new therapeutics for Parkinson's disease. Nat Commun. 2012;3:1146.

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

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