Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

CX546

Catalog No: tcsc3628

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
215923-54-9

Formula:
$C_{14}H_{17}NO_3$

Pathway:
Autophagy;Membrane Transporter/Ion Channel;Neuronal Signaling

Target:
Autophagy;iGluR;iGluR

Purity / Grade:
>98%

Solubility:
H2O : 2 mg/mL (8.09 mM; Need ultrasonic)

Observed Molecular Weight:
247.29

Product Description

CX546 is a selective positive AMPAR modulator; the prototypical ampakine agent.

IC50 value:

Target: AMPAR agonist

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in vitro: Treatments with the ampakine CX614 markedly and reversibly increased brain-derived neurotrophic factor (BDNF) mRNA and protein levels in cultured rat entorhinal/hippocampal slices [1]. in contrast to cyclothiazide or IDRA 21, the Ampakine CX546 binds specifically to the agonist bound nondesensitized receptor, most likely acting by destabilizing the desensitized receptor conformation [2]. In binding tests, CX546 caused an approximately 2-fold increase in the affinity for radiolabeled agonists, whereas CX516 was ineffective [3].

in vivo: Intraperitoneal injections of CX546 increased hippocampal BDNF mRNA levels in aged rats and middle-aged mice [1]. Administration of the positive modulator of alpha-amino-3-hydroxy-5-methyl-4-isoxazole-propionic acid receptors (AMPAR), CX546, during the conditioning phase only, improved the disrupted LI in mGluR5 knockout mice and facilitated LI in control C57BL/6J mice, given extended number of conditioning trails (four conditioning stimulus-unconditioned stimulus) [4].