

Product Data Sheet

Product Name: GluN2B-NMDAR Allosteric modulator 1

Cat. No.: GC79508

Chemical Properties

Cas. No. 2419700-58-4

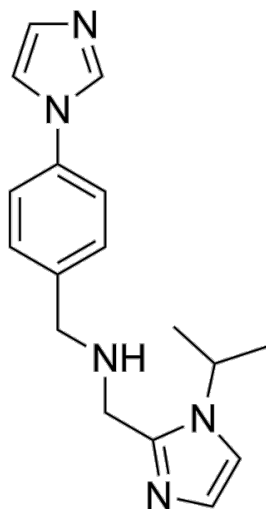
Formula $C_{17}H_{21}N_5$ M.Wt 295.38

Solubility DMSO: 4.17 mg/mL (14.12 mM); ultrasonic and warming and heat to 60°C) Storage Store at 4°C, away from moisture

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

GluN2B-NMDAR Allosteric modulator 1 is a selective GluN2B-NMDAR positive allosteric modulator. GluN2B-NMDAR Allosteric modulator 1 can increase glutamate- and aspartate-evoked GluN2B-NMDAR-gated currents with EC₅₀ values of 43.7 and 18 nM. GluN2B-NMDAR Allosteric modulator 1 can reverse anxiety-like behavior and social cognition deficits in mice. GluN2B-NMDAR Allosteric modulator 1 can be used for the research of neurological disease, such as anxiety [1].

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

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In Vivo, GluN2B-NMDAR Allosteric modulator 1 (Compound 175) (1 mg/kg; i.p.; 30 min before the induction of synaptic plasticity) facilitates low-frequency stimulation-induced long-term depression via a GluN2B-containing NMDAR-dependent mechanism in anesthetized rats^[1]. GluN2B-NMDAR Allosteric modulator 1 (1 mg/kg; i.p.; single dose) reverses anxiety-like behavior and social cognition deficits in 7-month-old Mecp2-OE mice and in a transgenic mouse line harboring an inducible expression of Disc1-N mice.^[1]

In Vitro, GluN2B-NMDAR Allosteric modulator 1 (Compound 175) (0.001-100 μ M) increases glutamate-evoked GluN1/GluN2B-NMDAR-gated currents in HEK293 cells with an EC₅₀ of 43.7 nM ($\log$ EC₅₀ = -7.36)^[1]. GluN2B-NMDAR Allosteric modulator 1 (0.0001-1 μ M) dose-dependently and selectively potentiates aspartate-evoked GluN2B-containing native NMDAR currents in primary rat hippocampal neurons with an EC₅₀ of 18 nM^[1]. GluN2B-NMDAR Allosteric modulator 1 (1 μ M; 3 h) does not induce cytotoxicity in primary cortical neurons^[1].

References:

[1]. Ge Y, et al. GluN2B-specific NMDAR positive allosteric modulation reverses cognitive and behavioral abnormalities in Mecp2 and Disc1 transgenic mice. Sci Adv. 2026 Jan 9;12(2):eady3891.

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