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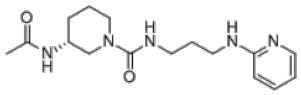
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	CBD3063
Cat. No.	:	PC-21384
CAS No.	:	1281060-70-5 (Racemic)
Molecular Formula	:	$C_{16}H_{25}N_5O_2$
Molecular Weight	:	319.41
Target	:	Calcium Channel
Solubility	:	10 mM in DMSO



CAS: 1281060-70-5 (Racemic)

Biological Activity

CBD3063 is a selective, first-in-class inhibitor of **Cav2.2-CRMP2** (ollapsin response mediator protein 2) interaction, suppresses surface trafficking of Cav2.2, and N-type (Cav2.2) calcium currents.
CBD3063 (20 μM) reduces Cav2.2 protein association with CRMP2 by ~35% in mouse neuronal line expressing both CRMP2 and Cav2.2, also decreases the closeness of Cav2.2–CRMP2 in neurons by the proximity ligation assay (PLA).
CBD3063 does not affect the voltage dependence of activation or inactivation of Cav1 (L-type), Cav2.1 (P/Q-type), Cav2.3 (R-typeI channels.
CBD3063 decreases spinal cord excitability and excitatory neurotransmitter release.
CBD3063 administration (i.p.) dose-dependently mitigates SNI-induced mechanical allodynia with ED50 of 1.50 mg/kg.
CBD3063 (10 mg/kg) effectively paralleled the antinociceptive strength of GBP (30 mg/kg) in alleviating the behavioral signs of neuropathic pain.
CBD3063 (9 mg/kg, i.p.) reverses PAC-induced mechanical and cold hypersensitivity, effectively alleviates pain-like behavior through multiple routes of administration.

References

Kimberly Gomez, et al. ***Proc Natl Acad Sci U S A.*** 2023 Nov 21;120(47):e2305215120.

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