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

N-type calcium channel blocker-1

Catalog No: tcsc0018461

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Specifications

CAS No:
241499-17-2

Formula:
$C_{31}H_{47}N_3$

Pathway:
Membrane Transporter/Ion Channel

Target:
Calcium Channel

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
461.73

Product Description

N-type calcium channel blocker-1 is an orally active analgesic agent which shows high affinity to functionally block **N-type calcium channels** with an **IC_{50}** of 0.7 μM in the IMR32 assay.

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IC50 & Target: IC50: 0.7 μM (N-type calcium channels)[1]

In Vitro: N-type calcium channel blocker-1 shows good activities in the IMR32 assay (IC_{50}=0.7 μM). N-type calcium channel blocker-1 is the most orally active N-type calcium channel blocker for analgesia found in a series of compounds[1].

In Vivo: N-type calcium channel blocker-1 shows good activities in the acetic acid anti-writhing model (ED_{50}=4 mg/kg, iv). N-type calcium channel blocker-1 exhibits oral activity (ED_{50}=12 mg/kg, po). A time course study of N-type calcium channel blocker-1 in the anti-writhing model indicates that the CF-1 mice have maximal effect at 120 min after oral dosing at 60 mg/kg. Further evaluation of N-type calcium channel blocker-1 demonstrates several important and advantageous features: the pharmacokinetic profile of N-type calcium channel blocker-1 is improved (Versus of 5.9 L/kg and CL of 26 mL/min/kg) and the logPn of 26 is favorable for CNS agent (logPn measured to be 3.20)[1].