



## N-type calcium channel blocker-1

Catalog No: tcsc0018461

Size: 1mg  Size: 5mg  Size: 10mg  Specifications  CAS No: 241499-17-2  Formula: $C_{31}H_{47}N_{3}$
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CAS No: 241499-17-2 Formula:
241499-17-2 Formula:
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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  $\mu$ M in the IMR32 assay.





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

In Vitro: N-type calcium channel blocker-1 shows good activities in the IMR32 assay (IC $_{50}$ =0.7  $\mu$ M). N-type calcium channel blocker-1 is the most orally active N-type calcium channel blocker for analgesia found in a series of compounds<sup>[1]</sup>.

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)<sup>[1]</sup>.

All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!