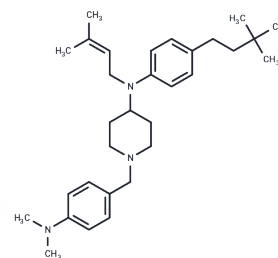


## N-type calcium channel blocker-1

### Chemical Properties

CAS No. :	241499-17-2
Formula:	C <sub>31</sub> H <sub>47</sub> N <sub>3</sub>
Molecular Weight:	461.73
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



### Biological Description

Description	N-type calcium channel blocker-1 is an orally active analgesic agent with a high affinity for functionally blocking N-type calcium channels.
Targets(IC50)	Calcium Channel
In vitro	N-type calcium channel blocker-1, the most orally active compound in its series for analgesia, demonstrates significant activity in the IMR32 assay with an IC <sub>50</sub> of 0.7 μM[1].
In vivo	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 logP <sub>n</sub> of 26 is favorable for CNS agent (logP <sub>n</sub> measured to be 3.20)

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1658 mL	10.8288 mL	21.6577 mL
5 mM	0.4332 mL	2.1658 mL	4.3315 mL
10 mM	0.2166 mL	1.0829 mL	2.1658 mL
50 mM	0.0433 mL	0.2166 mL	0.4332 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Hu LY, et al. The discovery of [1-(4-dimethylamino-benzyl)-piperidin-4-yl]-[4-(3,3-dimethylbutyl)-phenyl]-[3-methyl-but-2-enyl]-amine, an N-type Ca<sup>2+</sup> channel blocker with oral activity for analgesia. Bioorg Med Chem. 2000 Jun;8(6):1203-12.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481