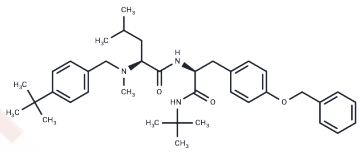
Data Sheet (Cat.No.T16448)

PD173212

Chemical Properties



CAS No. : 217171-01-2

Formula: C38H53N3O3

Molecular Weight: 599.85

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	PD 173212 is a blocker that blocks N-type voltage sensitive calcium channel (Cav2.2). PD173212 (0.0017-1.7 μmol/kg, Intraperitoneal Injection.) dose-dependently reduced DNBS-induced visceral hypersensitivity in mice.
Targets(IC50)	Calcium Channel
In vitro	PD 173212 blocked recombinant B-class (N-type) Ca+2 channels with a IC50 of 74 nM (N = 2), and blocked Na+ channels by 8% at 1 μM (N = 4), and blocked K+ channels by 10% at 1 μM (N = 4) in superior cervical ganglion neurons. PD 173212 effectively blocks recombinant B-class (N-type) calcium channel currents 78±7.8% (IC50: 74 nM), by whole-cell voltage-clamp techniques[1].
In vivo	This study evaluated the effect of acute administration of the selective N-type Cav2.2 blocker PD17321238 in their visceral pain model. The test (VMR assessment) was performed on day 14 after DNBS injection. PD173212 (0.0017-1.7 μmol·kg−1, i.p.) dose-dependently reduced the visceral hypersensitivity induced by DNBS. The compound started to be effective at a dose of 0.017 μmol·kg−1 and completely relieved abdominal pain when administered at a ten-fold higher dose[2]. In the audiogenic seizure model, PD173212 (30 mg/kg, i.v.) displays moderate efficacy in preventing tonic seizures[1].

Solubility Information

Solubility	DMSO: 90 mg/mL (150.04 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6671 mL	8.3354 mL	16.6708 mL
5 mM	0.3334 mL	1.6671 mL	3.3342 mL
10 mM	0.1667 mL	0.8335 mL	1.6671 mL
50 mM	0.0333 mL	0.1667 mL	0.3334 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.

Reference

Hu LY, et al. Structure-activity relationship of N-methyl-N-aralkyl-peptidylamines as novel N-type calcium channel blockers. Bioorg Med Chem Lett. 1999 Aug 2;9(15):2151-6.

Lucarini E, et al. Acute visceral pain relief mediated by A3AR agonists in rats: involvement of N-type voltage-gated calcium channels. Pain. 2020 Sep 1;161(9):2179-2190.