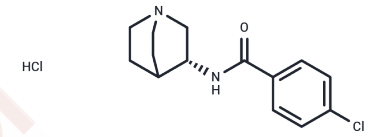
Data Sheet (Cat.No.T2422)

PNU-282987

Chemical Properties



CAS No. :	123464-89-1
Formula:	C14H18Cl2N2O
Molecular Weight:	301.21
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	PNU-282987 is a selective α7 nicotinic acetylcholine receptor(α7 nAChR) agonist with Ki of 26 nM; no affinity for α1β1γδ and α3β4 nAChRs (IC50 ≥ 60 μM).
Targets(IC50)	5-HT Receptor,AChR
Kinase Assay	Kinase inhibition assays : Kinase inhibition is measured by the use of radiometric assays conducted by Kinase Profiler service. Briefly, in the presence or absence of SKLB1002, VGFR2 (5-10 mU) is incubated in 25-μL reaction solution containing 8 mmol/L 3-(N-morpholino)propanesulfonic acid (MOPS), pH 7.0, 0.2 mmol/L EDTA, 0.33 mg/mL myelin basic protein, 10 mmol/L Mg acetate, and γ-[33P]ATP. After incubation for 40 minutes at room temperature, the reaction is stopped and 10 μL of the reaction solution is then spotted onto a P30 filtermat and washed 3 times for 5 minutes in 75 mmol/L phosphoric acid and once in methanol prior to scintillation counting.

Solubility Information

Solubility	H2O: 25 mg/mL (83 mM),Sonication is recommended. DMSO: 250 mg/mL (829.99 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1.67 mg/mL (5.54 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3199 mL	16.5997 mL	33.1994 mL
5 mM	0.664 mL	3.3199 mL	6.6399 mL
10 mM	0.332 mL	1.660 mL	3.3199 mL
50 mM	0.0664 mL	0.332 mL	0.664 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

Bodnar AL, et al. J Med Chem. 2005 Feb 24;48(4):905-8.
Zhang T, Yang K, Chen Y, et al. Impaired autophagy flux by lncRNA NEAT1 is critical for inflammation factors production in human periodontal ligament stem cells with nicotine treatment. Journal of Periodontal Research. 2022
Geng Y X, Lv H, Liu Y, et al.Electroacupuncture at Zusanli (ST36) Alleviate Intestinal Ischemia-Reperfusion Injury by Regulating the Cholinergic-miRNA 124 Pathway.Neurogastroenterology & Motility.2024: e14971.