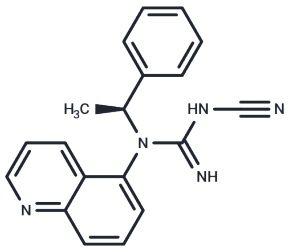
Data Sheet (Cat.No.T3639)

TargetMol

A-804598

Chemical Properties



CAS No. : 1125758-85-1

Formula: C19H17N5

Molecular Weight: 315.37

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	A-804598 is a competitive and selective P2X7 receptor antagonist (IC50: 10 nM, rat; 9 nM, mouse; 11 nM, human).
Targets(IC50)	P2X Receptor
In vitro	A-804598 effectively blocked IL-1β release in the THP-1 cells (IC50: 8.5 nM). It also blocked agonist-evoked pore formation in differentiated human THP-1 cells (IC50: 8.1 nM) with similar potency as in the calcium-influx assay. [1]
In vivo	According to the autoradiographic analysis of coronal rat brain sections, there was specific binding of [3H]-A-804598 throughout the rat brain. In the grey matter of the L4-L6 region of the rat spinal cord, it was also found that high levels of [3H]-A-804598 specific binding. [2]

Solubility Information

Solubility	DMSO: 31.5 mg/mL (99.88 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.34 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	3.1709 mL	15.8544 mL	31.7088 mL
5 mM	0.6342 mL	3.1709 mL	6.3418 mL
10 mM	0.3171 mL	1.5854 mL	3.1709 mL
50 mM	0.0634 mL	0.3171 mL	0.6342 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

Donnelly-Roberts DL, et al. Neuropharmacology. 2009 Jan;56(1):223-9.
Zhong T, Chen S, Deng K, et al.Magnesium alleviates extracellular histone-induced apoptosis and defective bacterial phagocytosis in macrophages by regulating intracellular calcium signal.International Immunopharmacology.2024, 132: 111870.
Able SL, et al. Br J Pharmacol. 2011 Jan;162(2):405-14.