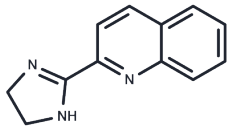
Data Sheet (Cat.No.T22051)

TargetMol

BU 224 hydrochloride

Chemical Properties



CAS No. : 205437-64-5

Formula: C12H12ClN3

Molecular Weight: 233.7

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	BU 224 hydrochloride is a selective imidazoline I(2) binding site ligand and has antinociceptive and antidepressant-like activities.
Targets(IC50)	Apoptosis,Imidazoline Receptor,TNF
In vivo	BU 224 hydrochloride (5 mg/kg; i.p.) attenuated spatial and perirhinal cortex-dependent recognition memory deficits in 5XFAD mice. Fear-conditioning testing revealed that BU 224 hydrochloride also improved both associative learning and hippocampal- and amygdala-dependent memory in transgenic but not in WT mice. In the brain, BU 224 hydrochloride reduced levels of the microglial marker Iba1 and pro-inflammatory cytokines IL-1β and TNF-α and increased the expression of astrocytic marker GFAP in 5XFAD mice[1].

Solubility Information

Solubility	DMSO: 3 mg/mL (12.84 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: 1 mg/mL (4.28 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	4.279 mL	21.395 mL	42.7899 mL
5 mM	0.8558 mL	4.279 mL	8.558 mL
10 mM	0.4279 mL	2.1395 mL	4.279 mL
50 mM	0.0856 mL	0.4279 mL	0.8558 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

Mirzaei N, et al. Imidazoline ligand BU224 reverses cognitive deficits, reduces microgliosis and enhances synaptic connectivity in a mouse model of Alzheimer's disease. Br J Pharmacol. 2021 Feb;178(3):654-671.
Min JW, et al. Gender difference in epileptogenic effects of 2-BFI and BU224 in mice. Eur J Pharmacol. 2013 Oct 15; 718(1-3):81-6.