

MR2938

Chemical Properties

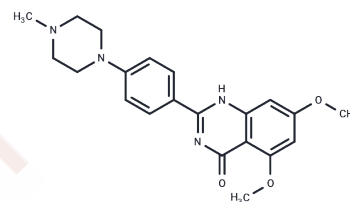
CAS No. : 1044870-65-6

Formula: C₂₁H₂₄N₄O₃

Molecular Weight: 380.44

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	MR2938 is a potent AChE inhibitor (IC ₅₀ = 5.04 μM). MR2938 significantly inhibits the production of NO (IC ₅₀ = 3.29 μM). MR2938 inhibits neuroinflammation by blocking the MAPK/JNK and NF-κB signaling pathways and can be used for Alzheimer's disease (AD) research.
Targets(IC ₅₀)	NF-κB,MAPK,NO Synthase,Cholinesterase (ChE),JNK
In vitro	MR2938 (0-10 μM, 24 h) can reduce the mRNA levels of pro-inflammatory cytokines IL-1β, TNF-α, IL-6 and CCL2 at 1.25 μM[1]; at a concentration of 10 μM acting for 24 h, it can block the NF-κB signaling pathway in lipopolysaccharide (LPS)-induced BV-2 cells[1]. MR2938 (20 μM) has inhibitory activities against acetylcholinesterase (AChE) and butyrylcholinesterase (BChE), with inhibitory rates of 91.8 ± 2.68% and 38.7 ± 11.7%, respectively[1]. MR2938 (0-10 μM) has little effect on the cell viability of the BV2 cell line[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6285 mL	13.1427 mL	26.2854 mL
5 mM	0.5257 mL	2.6285 mL	5.2571 mL
10 mM	0.2629 mL	1.3143 mL	2.6285 mL
50 mM	0.0526 mL	0.2629 mL	0.5257 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

Lv L, et al. Discovery of quinazolin-4(3H)-one derivatives as novel AChE inhibitors with anti-inflammatory activities. Eur J Med Chem. 2023 Apr 6;254:115346.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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