

AChE/BuChE/MAO-B-IN-2

Chemical Properties

CAS No. :

Formula: C19H18FNO3

Molecular Weight: 327.35

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	AChE/BuChE/MAO-B-IN-2 (compound 4b) is a potent inhibitor of AChE, BuChE, and hu MAO-B, with respective IC50 values of 5.3 μ M, 12.4 μ M, and 1.9 \pm 0.08 μ M, indicating good in vitro blood-brain barrier (BBB) permeability. It effectively reduces excessive AChE and BuChE levels associated with Alzheimer's disease (AD) and holds potential for anti-Alzheimer's research [1].
Targets(IC50)	Others,Cholinesterase (ChE),Monoamine Oxidase
In vitro	Compound 4b (AChE/BuChE/MAO-B-IN-2) at concentrations of 5, 10, 20 μ mol/L for 2 hours, exhibited significant neuroprotective effects against A β 1-42-induced damage in PC12 cells [1]. Additionally, when incubated at 1 mg/mL in simulated gastric/intestinal fluid, plasma, and rat liver microsomes, AChE/BuChE/MAO-B-IN-2 demonstrated good stability over time periods of 0, 0.5, 1, 1.5, 2, and 3 hours [1].
In vivo	AChE/BuChE/MAO-B-IN-2 (compound 4b), at concentrations of 0.0049, 0.0195, and 0.078 μ g/mL with a 10-minute treatment, significantly ameliorated motor dysfunction and improved responsiveness in a zebrafish Alzheimer's disease model induced by ACAL 3 [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0548 mL	15.2742 mL	30.5483 mL
5 mM	0.611 mL	3.0548 mL	6.1097 mL
10 mM	0.3055 mL	1.5274 mL	3.0548 mL
50 mM	0.0611 mL	0.3055 mL	0.611 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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