

BChE/p38- α MAPK-IN-1

Chemical Properties

CAS No. :	3077831-11-6
Formula:	C ₂₆ H ₃₂ F ₂ N ₄ O
Molecular Weight:	454.57
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	BChE/p38- α MAPK-IN-1 is a selective dual inhibitor targeting hBChE (IC ₅₀ = 772 nM) and p38 α MAPK (IC ₅₀ = 191 nM). It reduces the production of pro-inflammatory cytokines (IL-1 β , IL-6, IL-8, TNF- α) in cells, improves scopolamine-induced cognitive impairment, alleviates LPS-induced spatial learning deficits, and exhibits anti-neuroinflammatory effects in mice, making it applicable for Alzheimer's disease (AD) research.
Targets(IC ₅₀)	Cholinesterase (ChE),p38 MAPK
In vitro	BChE/p38- α MAPK-IN-1 (Compound 95) exhibits inhibitory activity against hBChE (IC ₅₀ = 772 nM) and p38 α MAPK (IC ₅₀ = 191 nM). At concentrations of 1-5 μ M over 18 hours, it reduces the production of pro-inflammatory cytokines (IL-1 β , IL-6, IL-8, TNF- α) in phytohemagglutinin (PHA)-stimulated human peripheral blood mononuclear cells (PBMCs) and slightly increases the anti-inflammatory cytokine IL-12.
In vivo	BChE/p38- α MAPK-IN-1 (Compound 95), when administered intraperitoneally at 5-10 mg/kg 60 minutes prior to testing, improves scopolamine-induced cognitive impairment in adult male albino Swiss (CD-1) mice. Additionally, BChE/p38- α MAPK-IN-1, at a dosage of 10 mg/kg via intraperitoneal injection once daily for 10 days, alleviates spatial learning deficits induced by LPS and exhibits anti-neuroinflammatory effects in adult male C57BL/6J mice.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1999 mL	10.9994 mL	21.9988 mL
5 mM	0.440 mL	2.1999 mL	4.3998 mL
10 mM	0.220 mL	1.0999 mL	2.1999 mL
50 mM	0.044 mL	0.220 mL	0.440 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

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481