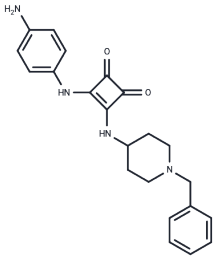
Data Sheet (Cat.No.T79251)

TargetMol

AChE-IN-30

Chemical Properties



CAS No. : 2937454-22-1

Formula: C22H24N4O2

Molecular Weight: 376.45

Storage: Keep away from moisture
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-IN-30 is a small-molecule acetylcholinesterase inhibitor with an IC50 value of 4.4 μM that demonstrates neuroprotective activity by suppressing intracellular reactive oxygen species accumulation and inhibiting hydrogen peroxide-induced apoptosis, thereby serving as a research compound for Alzheimer's disease models and oxidative stress-associated neuronal injury studies.
Targets(IC50)	Cholinesterase (ChE)
In vitro	**Method**: Donepezil-based hybrid compounds were synthesized and evaluated for cholinesterase inhibition and neuroprotection against H2O2-induced oxidative damage in SH-SY5Y cells. **Result**: AChE-IN-30 showed potent acetylcholinesterase inhibition (IC50 = 4.4 μM) and significant neuroprotection in SH-SY5Y cells, achieving 80.11% viability at 12.5 μM[1].

Solubility Information

Solubility	DMSO: 4 mg/mL (10.63 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6564 mL	13.282 mL	26.564 mL
5 mM	0.5313 mL	2.6564 mL	5.3128 mL
10 mM	0.2656 mL	1.3282 mL	2.6564 mL
50 mM	0.0531 mL	0.2656 mL	0.5313 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

Wan D, et al. Design, Synthesis, and Biological Activity of Donepezil: Aromatic Amine Hybrids as Anti-Alzheimerss Drugs. ACS Omega. 2023 Jun 5;8(24):21802-21812.