Data Sheet (Cat.No.T213028)

TargetMol

AChE/BChE-IN-29

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

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/BChE-IN-29 is an inhibitor of AChE/BChE. This compound exhibits balanced dual cholinesterase inhibitory activity, with an IC50 value of 2.1 μM against electric eel acetylcholinesterase (eeAChE) and 6.3 μM against horse serum butyrylcholinesterase (eqBChE). In an E. coli cell model, AChE/BChE-IN-29 effectively inhibits the aggregation of amyloid-β (Aβ42) and tau protein. It is a useful agent for Alzheimer's disease (AD) research.
Targets(IC50)	Cholinesterase (ChE)
In vitro	AChE/BChE-IN-29 (Compound 11r) exhibits balanced dual cholinesterase inhibitory activity with an IC50 of 2.1 μM for electric eel acetylcholinesterase (eeAChE) and an IC50 of 6.3 μM for equine serum butyrylcholinesterase (eqBChE). At 50 μM, AChE/BChE-IN-29 inhibits Aβ42 and tau protein aggregation in E. coli BL21(DE3) cells. The compound shows low cytotoxicity in SH-SY5Y cells at concentrations between 1 and 100 μM over 24 hours. Additionally, it significantly inhibits Aβ42 fibril formation at 50 μM over 6 to 48 hours.

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