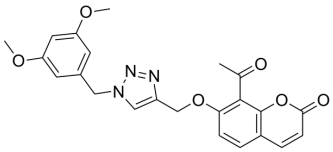
AChE/BChE-IN-12

Cat. No.:	HY-149211
Molecular Formula:	$C_{23}H_{21}N_3O_6$
Molecular Weight:	435.43
Target:	Cholinesterase (ChE); Beta-secretase; Amyloid-β
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AChE/BChE-IN-12 (compound 10b), a 3,5-dimethoxy analogue, is a potent AChE, BChE, and β-secretase-1 (BACE-1) inhibitor, with IC_{50} values of 2.57, 3.26, and 10.65 μM, respectively. AChE/BChE-IN-12 crosses the blood-brain barrier via passive diffusion and inhibits the self-aggregation of amyloid-β monomers. AChE/BChE-IN-12 can be used for Alzheimer's disease (AD) research[1].		
IC_{50} & Target	EeAChE 2.57 ± 0.3 μM (IC_{50})	eqBCHE 3.26 ± 0.1 μM (IC_{50})	BACE1 10.65 ± 0. μM (IC_{50})
In Vitro	AChE/BChE-IN-12 (compound 10b) interacts with peripheral anionic site (PAS) as well as catalytic anionic site (CAS) residues of AChE[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

[1]. Sharma A, et al. Synthesis and Biological Evaluation of Coumarin Triazoles as Dual Inhibitors of Cholinesterases and β-Secretase. ACS Omega. 2023 Mar 16;8(12):11161-11176.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA