AChE/BChE/MAO-B-IN-3

Cat. No.: HY-152113

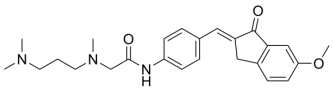
Molecular Formula: $C_{25}H_{31}N_3O_3$

Molecular Weight: 421.53

Target: Monoamine Oxidase; Cholinesterase (ChE)

Pathway: Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AChE/BChE/MAO-B-IN-3, an indan-1-one derivative, is a potent MAO-B inhibitor with an IC_{50} of 0.0359 μM for human MAO-B. AChE/BChE/MAO-B-IN-3 is a potent AChE and BChE enzyme inhibitor, with IC_{50}s of 0.0473 μM and 0.0782 μM for human AChE and BChE enzyme, respectively. AChE/BChE/MAO-B-IN-3 shows significant antioxidant activity and has the potential for Alzheimer's disease (AD) research[1].		
IC_{50} & Target	hMAO-B 0.0359 μM (IC_{50})	hAChE 0.0473 μM (IC_{50})	hBCHE 0.0782 μM (IC_{50})
In Vitro	AChE/BChE/MAO-B-IN-3 (compound D38) has the IC_{50} value of 6.8118 μM on the NIH/3T3 fibroblast cell line[1]. AChE/BChE/MAO-B-IN-3 (1 mM) demonstrates strong human AChE and BChE enzyme inhibition profiles by generating at 93% activity, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

[1]. Begüm Nurpelin Sağlık, et al. Design, Synthesis, and In Vitro and In Silico Approaches of Novel Indanone Derivatives as Multifunctional Anti-Alzheimer Agents. ACS Omega. 2022 Dec 7;7(50):47378-47404.

Caution: Product has not been fully validated for medical applications. For research use only.

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