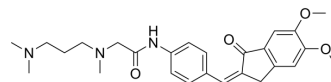


ACHe/BChE/MAO-B-IN-4

Cat. No.:	HY-152114
Molecular Formula:	C ₂₆ H ₃₃ N ₃ O ₄
Molecular Weight:	451.56
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-4, an indan-1-one derivative, is a potent MAO-B inhibitor with an IC ₅₀ of 0.0393 μM for human MAO-B. AChE/BChE/MAO-B-IN-4 is a potent AChE and BChE enzyme inhibitor, with IC ₅₀ s of 0.0458 μM and 0.075 μM for human AChE and BChE enzyme, respectively. AChE/BChE/MAO-B-IN-4 shows significant antioxidant activity and prevent β-amyloid plaque aggregation. AChE/BChE/MAO-B-IN-4 has the potential for Alzheimer's disease (AD) research ^[1] .
In Vitro	ACHe/BChE/MAO-B-IN-4 (compound D39) has the IC ₅₀ value of 12.3498 μM on the NIH/3T3 fibroblast cell line ^[1] . AChE/BChE/MAO-B-IN-4 (1 mM) demonstrates strong human AChE and BChE enzyme inhibition profiles by generating at 92% activity, respectively ^[1] . AChE/BChE/MAO-B-IN-4 has an IC ₅₀ value of 0.1966 μM on β-amyloid plaque aggregation ^[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.

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