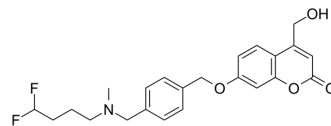


Dual AChE-MAO B-IN-1

Cat. No.:	HY-145695
Molecular Formula:	C ₂₃ H ₂₅ F ₂ NO ₄
Molecular Weight:	417.45
Target:	Cholinesterase (ChE); Monoamine Oxidase
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dual AChE-MAO B-IN-1 (compound 15) is an orally bioavailable CNS-permeant potent inhibitor of both human AChE (IC ₅₀ =550 nM) and MAO B (IC ₅₀ =8.2 nM). Dual AChE-MAO B-IN-1 behaves as a safe and metabolically stable neuroprotective agent, devoid of cytochrome liability ^[1] .
In Vitro	Dual AChE-MAO B-IN-1 (compound 15) (1-100 μM) has no significant effect on the viability of human neuroblastoma (SH-SY5Y) and hepatocellular carcinoma (HepG2) cells even at concentration up to 100 μM ^[1] . Dual AChE-MAO B-IN-1 (compound 15) (0.1-5 μM, 24 h) can reduce neuronal damage produced by Aβ1-42 and H ₂ O ₂ and completely shut down N-methyl-d-aspartate (NMDA) toxicity in neuroblastoma cultures ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Rullo M, et al. Probing Fluorinated Motifs onto Dual AChE-MAO B Inhibitors: Rational Design, Synthesis, Biological Evaluation, and Early-ADME Studies. *J Med Chem.* 2022;65(5):3962-3977.

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

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