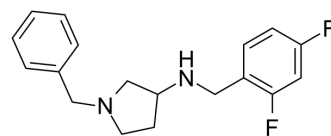


## ACHe/BChE/BACE-1-IN-2

<b>Cat. No.:</b>	HY-147659
<b>CAS No.:</b>	1877000-20-8
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>20</sub> F <sub>2</sub> N <sub>2</sub>
<b>Molecular Weight:</b>	302.36
<b>Target:</b>	ACHe; Beta-secretase; ROS
<b>Pathway:</b>	Neuronal Signaling; Protein Tyrosine Kinase/RTK
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	AChE/BChE/BACE-1-IN-2 (Compound 4o) is an orally active inhibitor of AChE, BChE, and BACE-1 with IC <sub>50</sub> values of 0.069, 0.127 and 0.097 μM against hAChE, hBChE and hBACE-1, respectively. AChE/BChE/BACE-1-IN-2 shows considerable PAS-AChE binding capability, excellent brain permeation, potential disassembly of Aβ aggregates, and neuroprotective activity against Aβ-induced stress. AChE/BChE/BACE-1-IN-2 has remarkable antioxidant potential <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 0.069 μM (hAChE), 0.097 μM (hBACE-1), 0.127 μM (hBChE) <sup>[1]</sup>
<b>In Vivo</b>	AChE/BChE/BACE-1-IN-2 (Compound 4o) (0-10 mg/kg; p.o.) ameliorates cognitive dysfunction against the scopolamine-induced amnesia model in the Y-maze test <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Choubey PK, et al. Design, synthesis, and multitargeted profiling of N-benzylpyrrolidine derivatives for the treatment of Alzheimer's disease. *Bioorg Med Chem*. 2020 Nov 15;28(22):115721.

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

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