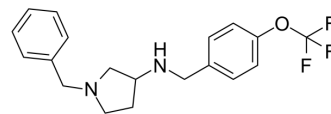


## ACHe/BChE/BACE-1-IN-1

<b>Cat. No.:</b>	HY-147658
<b>CAS No.:</b>	1321361-13-0
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>21</sub> F <sub>3</sub> N <sub>2</sub> O
<b>Molecular Weight:</b>	350.38
<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-1 (Compound 4k) is an orally active inhibitor of AChE, BChE, and BACE-1 with IC <sub>50</sub> values of 0.058, 0.082 and 0.115 μM against hAChE, hBChE and hBACE-1, respectively. AChE/BChE/BACE-1-IN-1 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-1 has remarkable antioxidant potential <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 0.058 μM (hAChE), 0.082 μM (hBChE), 0.115 μM (hBACE-1) <sup>[1]</sup>
<b>In Vivo</b>	ACHe/BChE/BACE-1-IN-1 (Compound 4k) (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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