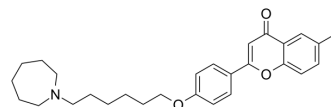


AChE-IN-14

| | |
|---------------------------|---|
| Cat. No.: | HY-146035 |
| CAS No.: | 2390042-05-2 |
| Molecular Formula: | C ₂₈ H ₃₅ NO ₃ |
| Molecular Weight: | 433.58 |
| Target: | Cholinesterase (ChE); Histamine Receptor |
| Pathway: | Neuronal Signaling; GPCR/G Protein; Immunology/Inflammation |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | |
|--------------------|--|
| Description | <p>ACHe-IN-14 (compound 5) is a potent cholinesterase inhibitor with IC₅₀s of 0.46, 0.48, and 0.44 μM for electric eel acetylcholinesterase (eeAChE), human recombinant acetylcholinesterase (hAChE), and equine serum butyrylcholinesterase (eqBuChE), respectively. AChE-IN-14 exhibits high affinity toward human H₃ receptor (H₃R; K_i= 159.8 nM). AChE-IN-14 can be used for the research of Alzheimer's disease^[1].</p> |
| In Vitro | <p>ACHe-IN-14 (compound 5) has a good affinity to human H₃ receptor with a K_i value of 159.8 nM in HEK293 cells^[1]. AChE-IN-14 has a high orally activity and cannot cross the blood-brain barrier^[1]. AChE-IN-14 (10 μM, 5 min) inhibits hAChE with an IC₅₀ value of 0.48 μM and represents the non-competitive type of eeAChE (K_i = 176 nM) and eqBuChE (K_i = 281 nM) inhibition^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> |

REFERENCES

[1]. Marek Bajda, et al. Search for new multi-target compounds against Alzheimer's disease among histamine H₃ receptor ligands. Eur J Med Chem. 2020 Jan 1;185:111785.

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

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