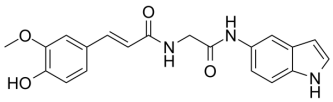
AChE/BChE-IN-9

Cat. No.:	HY-146399
CAS No.:	2761542-55-4
Molecular Formula:	$C_{20}H_{19}N_3O_4$
Molecular Weight:	365.38
Target:	AChE; ROS
Pathway:	Neuronal Signaling; Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AChE/BChE-IN-9 (Compound 7a) is a potent, orally active AChE and BChE inhibitor with IC_{50} values of 5.74 μM and 14.05 μM against hAChE and eqBChE, respectively. AChE/BChE-IN-9 is also an efficacious antioxidant with an IC_{50} of 57.35 μM. AChE/BChE-IN-9 is able to chelate iron and modulates aggregation of amyloid $\beta_{1\text{-}42}$. AChE-IN-16 can cross the BBB[1].
IC_{50} & Target	IC_{50}: 5.74 μM (AChE), 14.05 μM (BChE)[1]
In Vivo	AChE/BChE-IN-9 (Compound 7a) (0-25 mg/kg) improves spatial memory in cognitive deficit mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Singh YP, et al. Design, synthesis and biological evaluation of novel naturally-inspired multifunctional molecules for the management of Alzheimer's disease. Eur J Med Chem. 2020 Jul 15;198:112257.

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