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- Diagnostik & molekulare Diagnostik
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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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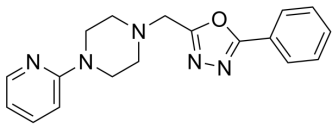
AChE-IN-63

Cat. No.:	HY-158261
CAS No.:	876685-78-8
Molecular Formula:	$C_{18}H_{19}N_5O$
Molecular Weight:	321.38
Target:	Cholinesterase (ChE); Amyloid-β; Beta-secretase
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AChE-IN-63 (Compound 5AD) is a selective inhibitor of hAChE (IC_{50}=0.103 μM). AChE-IN-63 also inhibits hBChE and hBACE-1 (IC_{50}= 10 μM (hBChE); 1.342 μM (hBACE-1)). AChE-IN-63 inhibits Aβ aggregation, preventing the formation and deposition of A β1-42. AChE-IN-63 can effectively penetrate the blood-brain barrier and is orally effective. It is primarily used in Alzheimer's disease research[1].

IC_{50} & Target	hAChE	hBCHE
	0.103 μM (IC_{50})	10 μM (IC_{50})

In Vitro

AChE-IN-63 (5-20 μM; 48 h) inhibits Aβ1-42 aggregation in a concentration-dependent manner[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

AChE-IN-63 (p.o.; 100 mg/kg; single dose) exhibits no toxicity or abnormal reactions in Swiss albino mice[1].

AChE-IN-63 (p.o.; 5-20 mg/kg; single dose) improves learning and memory in cognitive dysfunction mice in the Scopolamine (HY-N0296) Y-Maze Model and demonstrates good antioxidant properties[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Scopolamine Y-Maze Model [1]
Dosage:	5; 10 ;20 mg/kg
Administration:	p.o.; single dose
Result:	Showed significant improvement in spontaneous alternation behavior. Reduced AChE and MDA levels and increased CAT levels.

REFERENCES

[1]. Singh A, et al. Structure-Guided Design, Synthesis, and Biological Evaluation of Peripheral Anionic Site Selective and Brain Permeable Novel Oxadiazole-Piperazine Conjugates against Alzheimer's Disease with Antioxidant Potential. ACS Omega. 2024 Apr 11;9(16):18169-18182.

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

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