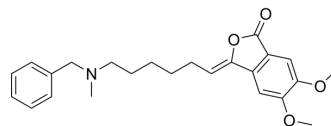


AChE-IN-21

Cat. No.:	HY-150545
CAS No.:	2413656-04-7
Molecular Formula:	C ₂₄ H ₂₉ NO ₄
Molecular Weight:	395.49
Target:	Cholinesterase (ChE)
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AChE-IN-21 (Compound I-8) is a potent, selective and orally active AChE inhibitor with an IC ₅₀ of 2.66 nM. AChE-IN-21 displays excellent BBB permeability in vitro ^[1] .	
IC₅₀ & Target	EeAChE 2.66 nM (IC ₅₀)	RatBuChE 19.10 μM (IC ₅₀)
In Vitro	AChE-IN-21 (Compound I-8) binds to both the catalytic active site and peripheral anionic site of AChE ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	AChE-IN-21 (Compound I-8) (0-25 mg/kg; i.g.; once a day for 7 consecutive days) significantly reverses scopolamine-induced memory deficit in mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Kunming mice at body weight of 18–22 g (male and female in half) ^[1]
	Dosage:	1.0, 5.0 and 25.0 mg/kg
	Administration:	Intragastric administration, once a day for 7 consecutive days
	Result:	Obviously blocked scopolamine (2 mg/kg, i.p.)-induced memory deficit.

REFERENCES

[1]. Luo L, et al. Design, synthesis and evaluation of phthalide alkyl tertiary amine derivatives as promising acetylcholinesterase inhibitors with high potency and selectivity against Alzheimer's disease. *Bioorg Med Chem*. 2020 Apr 15;28(8):115400.

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

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