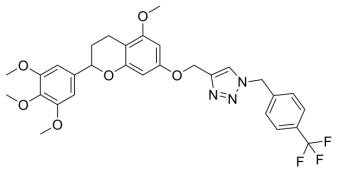
AChE/BuChE-IN-3

Cat. No.:	HY-147939
CAS No.:	2742707-47-5
Molecular Formula:	$C_{30}H_{30}F_3N_3O_6$
Molecular Weight:	585.57
Target:	Cholinesterase (ChE); Amyloid-β
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AChE/BuChE-IN-3 is a potent and blood-brain barrier (BBB) penetrant AChE and BuChE dual inhibitor with IC_{50}s of 0.65 μM and 5.77 μM for AChE and BuChE. AChE/BuChE-IN-3 also inhibits $A\beta_{1-42}$ aggregation. AChE/BuChE-IN-3 has effectively neuroprotective activities and nearly no toxicity on SH-SY5Y cells. AChE/BuChE-IN-3 can be used for researching Alzheimer's disease[1].

IC_{50} & Target	AChE	BChE
	0.65 μM (IC_{50})	5.77 μM (IC_{50})

In Vitro

AChE/BuChE-IN-3 (compound C4) (12.5-100 μM; 48 hours) exhibits no cytotoxicity on the human neuroblastoma cell line SH-SY5Y, and slightly increases cell viabilities[1].

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

Cell Viability Assay[1]

Cell Line:	SH-SY5Y
Concentration:	12.5 μM, 25 μM, 50 μM and 100 μM
Incubation Time:	48 hours
Result:	Exhibited no cytotoxicity on the human neuroblastoma cell line SH-SY5Y, and slightly increased cell viabilities.

REFERENCES

[1]. Shi S, et al. Semi-synthesis and biological evaluation of flavone hybrids as multifunctional agents for the potential treatment of Alzheimer's disease. Bioorg Chem. 2020 Jul;100:103917.

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

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