tau/Aβ40 aggregation-IN-1

Cat. No.: HY-149272

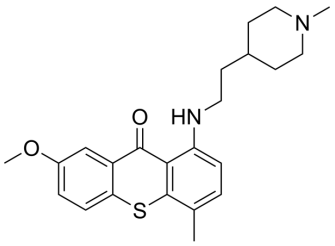
Molecular Formula: $C_{23}H_{28}N_2O_2S$

Molecular Weight: 396.55

Target: Tau Protein; Amyloid-β; Cholinesterase (ChE)

Pathway: Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

tau/Aβ40 aggregation-IN-1 (Compound 20) is a tau and $Aβ_{40}$ aggregation inhibitor with IC_{50}s of 1.8 μM and 1.3 μM, respectively[1].

IC_{50} & Target

$Aβ_{40}$ aggregation	tau aggregation	equine serum BChE	hAChE
1.3 μM (IC_{50})	1.8 μM (IC_{50})	0.96 μM (IC_{50})	16.10 μM (IC_{50})

In Vitro

tau/Aβ40 aggregation-IN-1 (Compound 20; 0.1-10 μM; 24 h) shows neuroprotective effect against Okadaic acid (HY-N6785)-induced tau toxicity in SH-SY5Y cells[1].

tau/Aβ40 aggregation-IN-1 inhibits electric eel AChE, human AChE and equine serum BChE with IC_{50}s of 4.4, 16.10 and 0.96 μM, respectively. tau/Aβ40 aggregation-IN-1 shows 16% inhibition against human BChE at 10 μM[1].

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

Cell Viability Assay[1]

Cell Line:	Neuroblastoma cell line SH-SY5Y
Concentration:	0.1, 1, 5, 10 and 50 μM
Incubation Time:	24 h with Okadaic acid (100 nM)
Result:	Exhibited a potent neuroprotective effect from 0.1 to 10 μM.

REFERENCES

[1]. Tonelli M, et al. Thioxanthenone-based derivatives as multitarget therapeutic leads for Alzheimer's disease. Eur J Med Chem. 2023 Mar 15;250:115169.

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