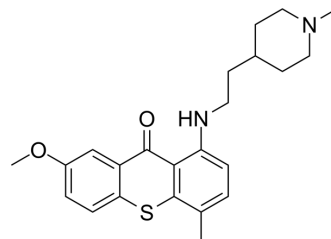


## tau/Aβ40 aggregation-IN-1

Cat. No.:	HY-149272
CAS No.:	2973377-10-3
Molecular Formula:	C <sub>23</sub> H <sub>28</sub> N <sub>2</sub> O <sub>2</sub> S
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

<b>Description</b>	tau/Aβ40 aggregation-IN-1 (Compound 20) is a tau and Aβ <sub>40</sub> aggregation inhibitor with IC <sub>50</sub> s of 1.8 μM and 1.3 μM, respectively <sup>[1]</sup> .											
<b>IC<sub>50</sub> &amp; Target</b>	Aβ <sub>40</sub> aggregation 1.3 μM (IC <sub>50</sub> )	tau aggregation 1.8 μM (IC <sub>50</sub> )	equine serum BChE 0.96 μM (IC <sub>50</sub> )	hAChE 16.10 μM (IC <sub>50</sub> )								
<b>In Vitro</b>	<p>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<sup>[1]</sup>.</p> <p>tau/Aβ40 aggregation-IN-1 inhibits electric eel AChE, human AChE and equine serum BChE with IC<sub>50</sub>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<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Neuroblastoma cell line SH-SY5Y</td> </tr> <tr> <td>Concentration:</td> <td>0.1, 1, 5, 10 and 50 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h with Okadaic acid (100 nM)</td> </tr> <tr> <td>Result:</td> <td>Exhibited a potent neuroprotective effect from 0.1 to 10 μM.</td> </tr> </table>				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.
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. Thioxanthone-based derivatives as multitarget therapeutic leads for Alzheimer's disease. Eur J Med Chem. 2023 Mar 15;250:115169.

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

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