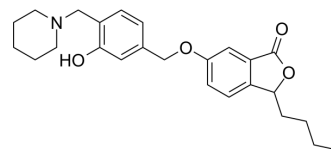


MAO-B-IN-7

Cat. No.:	HY-146762
CAS No.:	2851012-65-0
Molecular Formula:	C ₂₅ H ₃₁ NO ₄
Molecular Weight:	409.52
Target:	Monoamine Oxidase; Cholinesterase (ChE); Reactive Oxygen Species
Pathway:	Neuronal Signaling; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	MAO-B-IN-7 is a potent and blood-brain barrier permeable MAO-B and AChE inhibitor with IC ₅₀ s of 41 nM, 87 nM and 0.3 μM for human AChE, electric eel AChE and MAO-B, respectively. MAO-B-IN-7 can effectively alleviate oxidative stress and neuroinflammatory damage ^[1] .									
IC₅₀ & Target	MAO-B 0.3 μM (IC ₅₀)	hAChE 41 nM (IC ₅₀)								
In Vitro	<p>MAO-B-IN-7 (compound 7d) can effectively interact with Cu²⁺ to form the corresponding complexes, and has good ability to inhibit ROS's production induced by Cu²⁺^[1].</p> <p>MAO-B-IN-7 (10-100 μM; 24 hours) decreases the viability of PC-12 cells at 100 μM, but does not show obvious cytotoxicity at 10 and 25 μM^[1].</p> <p>MAO-B-IN-7 (4-25 μM; 24 hours) protects H₂O₂-induced PC-12 cells injury, and the cell viability are 80.2%, 71.1% and 56.3% at 25.0 μM, 10.0 μM and 4.0 μM, respectively.^[1]</p> <p>MAO-B-IN-7 (2.5 μM and 10 μM; 8 and 24 hours) inhibits ROS production induced by LPS in BV-2 cells in a dose-dependent manner; inhibits NO production with 30.4%, 43.5% and 58.9% at the concentrations of 0.5 μM, 2.5 μM and 10.0 μM, respectively; also inhibits TNF-α release with 32.7%, 47.8% and 63.2% at the concentrations of μM, 2.5 μM and 10.0 μM, respectively^[1].</p> <p>MAO-B-IN-7 exhibits the parallel artificial membrane permeation of 8.59 × 10⁻⁶ in vitro blood-brain barrier permeation study^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay</p> <table border="1"> <tr> <td>Cell Line:</td> <td>PC-12^[1]</td> </tr> <tr> <td>Concentration:</td> <td>10 μM, 25 μM, 100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>Decreased the viability of PC-12 cells at 100 μM.</td> </tr> </table>		Cell Line:	PC-12 ^[1]	Concentration:	10 μM, 25 μM, 100 μM	Incubation Time:	24 hours	Result:	Decreased the viability of PC-12 cells at 100 μM.
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Concentration:	10 μM, 25 μM, 100 μM									
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REFERENCES

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

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