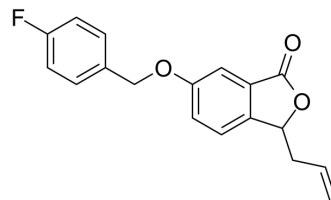


Monoamine Oxidase B inhibitor 1

Cat. No.:	HY-143244
CAS No.:	2807477-70-7
Molecular Formula:	C ₁₈ H ₁₅ FO ₃
Molecular Weight:	298.31
Target:	Monoamine Oxidase
Pathway:	Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Monoamine Oxidase B inhibitor 1 is a potent, reversible, orally active and selective monoamine oxidase B (MAO-B) inhibitor with an IC ₅₀ of 0.02 nM. Monoamine Oxidase B inhibitor 1 has antioxidant and anti-neuroinflammatory activities. Monoamine Oxidase B inhibitor 1 can cross the blood-brain barrier (BBB), and can be used for Parkinson's disease study ^[1] .	
IC₅₀ & Target	MAO-B 0.02 nM (IC ₅₀)	MAO-A 810 nM (IC ₅₀)
In Vitro	In cellular experiments, Monoamine Oxidase B inhibitor 1 (compound 14a; 0.5-10.0 μM) could significantly decrease the production of NO and TNF-α in LPS-stimulated BV-2 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	In in vivo acute and subacute MPTP-induced mice model of Parkinson's disease, Monoamine Oxidase B inhibitor 1 (compound 14a; 6-37.4 mg/kg; oral administration) could significantly improve most behavioral disorders, restore the dopamine content and decrease the MDA content in the mice striatum ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

[1]. Qing Song, et al. 6-Benzyloxyphthalides as selective and reversible monoamine oxidase B inhibitors with antioxidant and anti-neuroinflammatory activities for Parkinson's disease treatment. *Bioorg Chem.* 2022 Mar;120:105623.

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

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