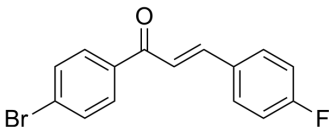
CHBO4

Cat. No.:	HY-155137
CAS No.:	98991-32-3
Molecular Formula:	$C_{15}H_{10}BrFO$
Molecular Weight:	305.14
Target:	Monoamine Oxidase; 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	CHBO4 is a potent, reversible, competitive, and selective hMAO-B inhibitor with an IC_{50} value of 0.031 μM in CHBO subseries and an K_i value of 0.010 ± 0.005 μM. CHBO4 reduce cell damage by scavenging intracellular reactive oxygen species (ROS). CHBO4 can be used for Parkinson's Disease (PD) research[1].	
IC_{50} & Target	hMAO-B 0.031 μM (IC_{50})	hMAO-B 0.010 μM (Ki)

In Vitro

CHBO4 (10-500 μg/mL, 48 h) is biologically safe in Vero cells[1].

CHBO4 (128.8 μg/mL, 10 min) can reduce ROS generation in Vero cells[1].

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

Cell Cytotoxicity Assay[1]

Cell Line:	Vero cells
Concentration:	10-500 μg/mL
Incubation Time:	48 h
Result:	Reduced cell viability percentage with the IC_{50} value of 128.8 μg/mL Decreased cellular density, cellular shrinkage, and blebbing exposed to concentrations (100-300 μg/mL) in Vero cells

REFERENCES

[1]. Thomas Parambi DG, et al. Halogenated class of oximes as a new class of monoamine oxidase-B inhibitors for the treatment of Parkinson's disease: Synthesis, biochemistry, and molecular dynamics study. Comput Biol Chem. 2023 Aug;105:107899.

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

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