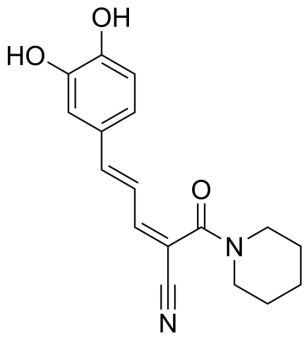
hMAO-B/MB-COMT-IN-2

Cat. No.:	HY-151390
Molecular Formula:	$C_{17}H_{18}N_2O_3$
Molecular Weight:	298.34
Target:	Monoamine Oxidase; COMT
Pathway:	Neuronal Signaling; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	hMAO-B/MB-COMT-IN-2 is a dual MAO-B/MB-COMT inhibitor (IC_{50}s: 4.27 μM for hMAO-B, 2.69 μM for MB-COMT). hMAO-B/MB-COMT-IN-2 protects cells against oxidative damage. hMAO-B/MB-COMT-IN-2 can be used in the research of neurodegeneration disease, such as Parkinson's Disease (PD)[1].
In Vitro	hMAO-B/MB-COMT-IN-2 (compound 8, 50 μM, 24 h) decreases in resazurin reduction in differentiated SH-SY5Y cells[1]. hMAO-B/MB-COMT-IN-2 (50 μM, 24 h) displays lysosomal toxicity by producing ROS in differentiated SH-SY5Y cells[1]. hMAO-B/MB-COMT-IN-2 (10 μM, 30 min) displays remarkable cytoprotective effects against t-BHP in differentiated SH-SY5Y cells[1]. hMAO-B/MB-COMT-IN-2 is predicted to cross the blood-brain barrier (BBB) by passive diffusion, determined by the parallel artificial membrane permeability assay (PAMPA)-BBB kit[1]. hMAO-B/MB-COMT-IN-2 (30-50 μM, 24 h) has good safety profile in SK-N-SH cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Daniel Chavarria, et al. Boosting caffeic acid performance as antioxidant and monoamine oxidase B/catechol-O-methyltransferase inhibitor. Eur J Med Chem. 2022 Sep 8;243:114740.

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