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产品名称：TB5
产品别名：TB5

生物活性：	
Description	TB5 is a potent, selective and reversible inhibitor of hMAO-B with a Ki value of 0.11±0.01 μM.
IC_{50} & Target	Ki: 0.11±0.01 μM (hMAO-B)[1]
In Vitro	TB5 and TB8 interacts with the catalytic site of hMAO-B and hMAO-A with a competitive mode of inhibition. TB5 shows the best inhibitory activity and higher selectivity toward hMAO-B, with Ki and SI values of 0.11±0.01μM and 13.18, respectively. hMAO-B inhibition by compound TB5 and hMAO-A inhibition by compound TB8 are completely reversed after 24 h of dialysis. Cytotoxicity studies show TB5 is nontoxic at 5 and 25 μM, resulting in cell viabilities of 95.75% and 84.59 %, respectively[1].
In Vivo	Compounds are dissolved in DMSO (5 mg/mL) and diluted with PBS/EtOH (70:30).Kinetic analyses are carried out for TB5 and TB8. A set of Lineweaver–Burk plots are constructed in the absence and presence of various concentrations of compounds TB5 and TC8. The set consists of five graphs, each constructed by measuring MAO-B and MAO-A catalytic rates at different substrate concentrations (0.1-1 μM). The first Lineweaver–Burk plot is constructed in the absence of inhibitor, while the remaining four graphs are constructed in the presence of different concentrations of TB5 and TB8[1].
References	[1]. Mathew B, et al. Synthesis, Biochemistry, and Computational Studies of Brominated Thienyl Chalcones: A New Class of Reversible MAO-B Inhibitors. ChemMedChem. 2016 Jun 6;11(11):1161-71.
实验参考：	
Cell Assay	In vitro cytotoxicity of brominated thiophene chalcones and standard MAO inhibitors are tested in human HepG2 hepatic cancer cells at three different concentrations (1, 5 and 25 μM)[1].
Kinase Assay	Compounds are dissolved in DMSO (5 mg/mL) and diluted with PBS/EtOH (70:30).Kinetic analyses are carried out for TB5 and TB8. A set of Lineweaver–Burk plots are constructed in the absence and presence of various concentrations of compounds TB5 and TC8. The set consists of five graphs, each constructed by measuring MAO-B and MAO-A catalytic rates at different substrate concentrations (0.1-1 μM). The first Lineweaver–Burk plot is constructed in the absence of inhibitor, while the remaining four graphs are constructed in the presence of different concentrations of TB5 and TB8[1].
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