

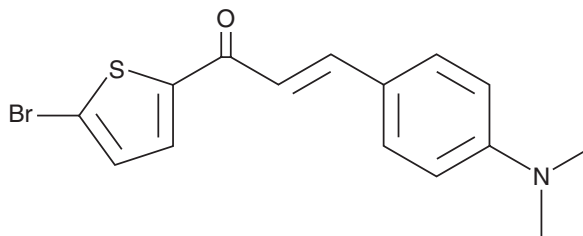
PRODUCT INFORMATION



TB5

Item No. 22947

CAS Registry No.: 948841-07-4
Formal Name: (2E)-1-(5-bromo-2-thienyl)-3-[4-(dimethylamino)phenyl]-2-propen-1-one
MF: C₁₅H₁₄BrNOS
FW: 336.3
Purity: ≥98%
UV/Vis.: λ_{max}: 436 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

TB5 is supplied as a crystalline solid. A stock solution may be made by dissolving the TB5 in the solvent of choice, which should be purged with an inert gas. TB5 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of TB5 in ethanol is approximately 1 mg/ml and approximately 33 mg/ml in DMSO and DMF.

Description

TB5 is a potent and selective monoamine oxidase B (MAO-B) inhibitor with K_i values of 110 and 1,450 nM for MAO-B and MAO-A, respectively.¹ It interacts with the catalytic site of human MAO-B in a competitive manner. In an enzyme assay, MAO-B activity increases from 37% to 97% following inhibitor washout, indicating TB5 binding is reversible. TB5 also demonstrates permeability in a parallel artificial membrane permeation assay (PAMPA), a model for the blood-brain barrier, and has minimal cytotoxicity (>84% cell viability) in HepG2 cells at a concentrations up to 25 μM.

Reference

1. Mathew, B., Haridas, A., Uçar, G., *et al.* Synthesis, biochemistry, and computational studies of brominated thienyl chalcones: A new class of reversible MAO-B inhibitors. *ChemMedChem* **11**(11), 1161-1171 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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