

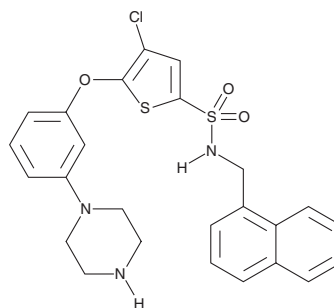
# PRODUCT INFORMATION



**B355252**

Item No. 21550

**CAS Registry No.:** 1261576-81-1  
**Formal Name:** 4-chloro-N-(1-naphthalenylmethyl)-5-[3-(1-piperazinyl)phenoxy]-2-thiophenesulfonamide  
**MF:** C<sub>25</sub>H<sub>24</sub>ClN<sub>3</sub>O<sub>3</sub>S<sub>2</sub>  
**FW:** 514.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 224, 262, 281 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

B355252 is supplied as a crystalline solid. A stock solution may be made by dissolving the B355252 in the solvent of choice, which should be purged with an inert gas. B355252 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of B355252 in these solvents is approximately 30 mg/ml. B355252 is also slightly soluble in ethanol.

B355252 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, B355252 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. B355252 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

B355252 is a neuroprotective agent.<sup>1-3</sup> It potentiates NGF-induced neurite outgrowth in NS-1 cells (EC<sub>50</sub> = ~1 μM).<sup>1</sup> B355252 inhibits glutamate-induced excitotoxicity in HT-22 cells in a concentration-dependent manner and inhibits glutamate-induced decreases in GSH levels and increases in Bax levels, intracellular accumulation of calcium, and production of reactive oxygen species (ROS) in HT-22 cells when used at a concentration of 8 μM.<sup>2</sup> It also inhibits decreases in cell viability, increases in ROS production, and mitochondrial membrane depolarization induced by 6-hydroxydopamine (6-OHDA; Item No. 25330) in HT-22 cells, an *in vitro* model of Parkinson's disease.<sup>3</sup>

## References

- Williams, A., Dandepally, S.R., Gilyazova, N., *et al.* Microwave-assisted synthesis of 4-chloro-N-(naphthalen-1-ylmethyl)-5-(3-(piperazin-1-yl)phenoxy)thiophene-2-sulfonamide (B-355252): A new potentiator of nerve growth factor (NGF)-induced neurite outgrowth. *Tetrahedron* **66(50)**, 9577-9581 (2010).
- Gliyazova, N.S., Huh, E.Y., and Ibeanu, G. A novel phenoxy thiophene sulphonamide molecule protects against glutamate evoked oxidative injury in a neuronal cell model. *BMC Neurosci.* **14(93)**, 1-13 (2013).
- Gliyazova, N.S. and Ibeanu, G.C. The chemical molecule B355252 is neuroprotective in an *in vitro* model of Parkinson's disease. *Cell Mol. Neurobiol.* **36(7)**, 1109-1122 (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.

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