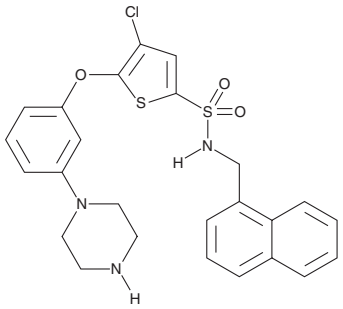
PRODUCT INFORMATION

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:	$C_{25}H_{24}ClN_3O_3S_2$
FW:	514.1
Purity:	≥98%
UV/Vis.:	λ_{max}: 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.[1-3] It potentiates NGF-induced neurite outgrowth in NS-1 cells (EC_{50} = ~1 µM).[1] 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.[2] 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.[3]

References

1. 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).
2. 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).
3. 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).

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