

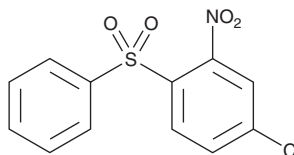
# PRODUCT INFORMATION



## BTB-1

Item No. 27219

**CAS Registry No.:** 86030-08-2  
**Formal Name:** 4-chloro-2-nitro-1-(phenylsulfonyl)-benzene  
**Synonyms:** NSC 156750, NSC 658180  
**MF:** C<sub>12</sub>H<sub>8</sub>ClNO<sub>4</sub>S  
**FW:** 297.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 231 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

BTB-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the BTB-1 in the solvent of choice, which should be purged with an inert gas. BTB-1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of BTB-1 in ethanol is approximately 3 mg/ml and approximately 10 mg/ml in DMSO and DMF.

BTB-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BTB-1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BTB-1 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

BTB-1 is a reversible inhibitor of the kinesin-8 family motor protein Kif18A (IC<sub>50</sub> = 1.69 μM).<sup>1</sup> It is selective for Kif18A over a panel of seven kinesins at 100 μM. BTB-1 (100 μM) inhibits Kif18A-dependent microtubule motility in a microtubule gliding assay. It induces mitotic accumulation of HeLa cells in a dose-dependent manner.

### Reference

1. Catarinella, M., Grüner, T., Strittmatter, T., *et al.* BTB-1: A small molecule inhibitor of the mitotic motor protein Kif18A. *Angew Chem. Int. Ed. Engl.* **48(48)**, 9072-9076 (2009).

#### 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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