

## Certificate of Analysis

**Product Name:** BTB1

**Catalog No.:** 5399

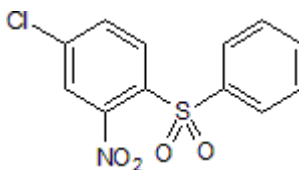
**Batch No.:** 1

CAS Number: 86030-08-2

IUPAC Name: 4-Chloro-2-nitro-1-(phenylsulfonyl)benzene

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>12</sub>H<sub>8</sub>ClNO<sub>4</sub>S  
**Batch Molecular Weight:** 297.71  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 20 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**Melting Point:** Between 117 - 119°C  
**HPLC:** Shows 99.6% purity  
<sup>1</sup>H NMR: Consistent with structure  
 Mass Spectrum: Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	48.41	2.71	4.7
Found	48.48	2.68	4.68

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Selective and ATP-competitive mitotic kinesin Kif18A inhibitor ( $IC_{50} = 1.7 \mu M$ ); reversibly inhibits microtubule-stimulated Kif18A ATPase activity. Displays selectivity against a panel of other mitotic kinesins.

**Physical and Chemical Properties:**

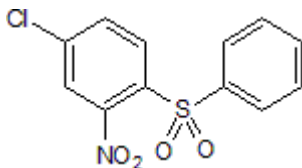
Batch Molecular Formula:  $C_{12}H_8ClNO_4S$

Batch Molecular Weight: 297.71

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol to 20 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Catarinella et al** (2009) BTB-1: a small molecule inhibitor of the mitotic motor protein Kif18A. *Angew.Chem.Int.Ed.Engl.* **48** 9072. PMID: 19856362.

**Braun et al** (2014) Synthesis and biological evaluation of optimized Inhibitors of the mitotic kinesin Kif18A. *ACS Chem.Biol.* **10** 554. PMID: 25402598.

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