

Catalog # 10-1543

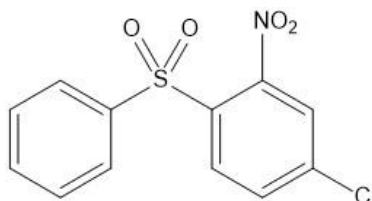
BTB-1

CAS# 86030-08-2

4-Chloro-2-nitro-1-(phenylsulfonyl)benzene;

NSC 156750

Lot # X109763



A selective, ATP-competitive and reversible inhibitor of mitotic kinesin Kif18A, $IC_{50}=1.7 \mu\text{M}$.^{1,2} Binds to an allosteric site near Kif18A loop 5 preventing a range of conformational changes thereby blocking motor function.³ Inhibits the differentiation of mouse bone marrow cells to dendritic cells.⁴ Suppresses the replication of influenza A virus, inhibiting activation of AKT, p38 MAPK, SAPK and RanBP3 leading to the prevention of nuclear export of viral ribonucleoprotein complexes. Greatly improves the viability of IAV-infected mice.⁵

- 1) Catarinella *et al.* (2009), *BTB-1; a small molecule inhibitor of the mitotic motor protein Kif18A*; Chem. Int. Ed. Engl., **48** 9072
- 2) Braun *et al.* (2015), *Synthesis and biological evaluation of optimized inhibitors of the mitotic kinesin Kif18A*; ACS Chem. Biol., **10** 554
- 3) Locke *et al.* (2017), *Structural basis of human kinesin-8 function and inhibition*; Proc. Natl. Acad. Sci. USA, **114** E9539
- 4) Kim *et al.* (2020), *Kinesin family member KIF18A is a critical cellular factor that regulates the differentiation and activation of dendritic cells*; Genes Genomics, **42** 41
- 5) Cho *et al.* (2020), *Selective and ATP-competitive kinesin KIF18A inhibitor suppresses the replication of influenza A virus*; J. Cell Mol. Med., **24** 5463

PHYSICAL DATA

Molecular Weight: 297.71
Molecular Formula: $\text{C}_{12}\text{H}_8\text{ClNO}_4\text{S}$
Purity: 98% by HPLC
NMR: (Conforms)
Solubility: DMSO (up to 30 mg/ml)
Physical Description: White or off-white solid
Storage and Stability: Store as supplied desiccated at room temperature for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.