

Certificate of Analysis

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Product Name: SB 3CT

Catalog No.: 6088

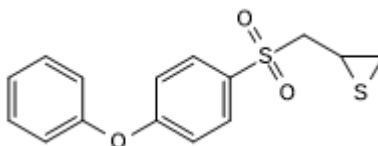
Batch No.: 1

CAS Number: 292605-14-2

IUPAC Name: 2-[[[(4-Phenoxyphenyl)sulfonyl]methyl]thiirane

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₄O₃S₂
Batch Molecular Weight: 306.4
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 20 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	58.8	4.61	
Found	58.71	4.69	

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

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IUPAC Name: 2-[[[(4-Phenoxyphenyl)sulfonyl]methyl]thiirane

Description:

Selective high affinity MMP2 inhibitor ($K_i = 28$ nM); also inhibits MMP9 ($K_i = 400$ nM). Active in vivo, neuroprotective and blood-brain barrier permeable.

Physical and Chemical Properties:

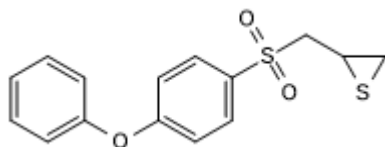
Batch Molecular Formula: $C_{15}H_{14}O_3S_2$

Batch Molecular Weight: 306.4

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°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:

Gooyit et al (2012) Selective gelatinase inhibitor neuroprotective agents cross the blood-brain barrier. *ACS Chem.Neurosci.* **3** 730. PMID: 23077716.

Gu et al (2005) A highly specific inhibitor of matrix metalloproteinase-9 rescues laminin from proteolysis and neurons from apoptosis in transient focal cerebral ischemia. *J.Neurosci.* **25** 6401. PMID: 16000631.

Kleifeld et al (2001) X-ray absorption studies of human matrix metalloproteinase-2 (MMP-2) bound to a highly selective mechanism-based inhibitor. comparison with the latent and active forms of the enzyme. *J.Biol.Chem.* **18** 17125. PMID: 11278946.

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