

Product Name: S 18986

Catalog No.: 3911

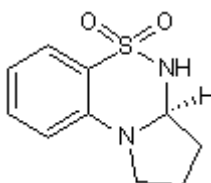
Batch No.: 1

CAS Number: 175340-20-2

IUPAC Name: 2,3,3a,4-Tetrahydro-1*H*-pyrrolo[2,1-*c*][1,2,4]benzothiadiazine-5,5-dioxide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₂N₂O₂S
Batch Molecular Weight: 224.28
Physical Appearance: Off-white solid
Solubility: DMSO to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.7 (Dichloromethane:Ethyl acetate [1:1])
HPLC: Shows 99.2% purity
Chiral HPLC: Shows >99.4% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.55	5.39	12.49
Found	53.84	5.27	12.38

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

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Description:

Positive allosteric modulator of AMPA receptors. Exhibits cognitive enhancing properties in rodent behavioral models. Brain penetrant.

Physical and Chemical Properties:

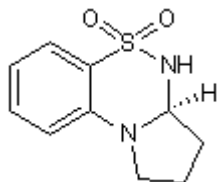
Batch Molecular Formula: C₁₀H₁₂N₂O₂S

Batch Molecular Weight: 224.28

Physical Appearance: Off-white solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 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:

Bourasset et al (2005) Neuropharmacokinetics of a new α -amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA) modulator, S18986 [(S)-2,3-dihydro-[3,4]cyclopentano-1,2,4-benzothiadiazine-1,1-dioxide], in the rat. *Drug Metab.Dispos.* **33** 1137. PMID: 15860654.

Lockhart et al (2000) (S)-2,3-dihydro-[3,4]cyclopentano-1,2,4-benzothiadiazine-1,1-dioxide: (S18986-1) a positive modulator of AMPA receptors enhances (S)-AMPA-mediated [³H]noradrenaline release from rat hippocampal and frontal cortex slices. *Eur.J.Pharmacol.* **401** 145. PMID: 10924919.

Desos et al (1996) Enantioselective synthesis of a pyrrolo-benzothiadiazine derivative S 18986, a new AMPA receptor positive modulator. *Bioorg.Med.Chem.Lett.* **6** 3003.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956