

Certificate of Analysis

Product Name: LY 404187

Catalog No.: 5297

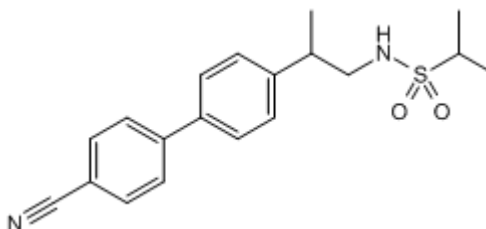
Batch No.: 1

CAS Number: 211311-95-4

IUPAC Name: *N*-[2-(4'-Cyano[1,1'-biphenyl]-4-yl)propyl]-2-propanesulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₂₂N₂O₂S
Batch Molecular Weight: 342.46
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 50 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.64	6.48	8.18
Found	66.77	6.59	8.11

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

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Description:

Selective AMPA receptor positive allosteric modulator (IC₅₀ values are 0.15, 0.21, 1.66 and 5.65 μM for GluA2_i, GluA4_i, GluA3_i and GluA1_i respectively). Potentiates glutamate and AMPA-evoked currents in pre frontal cortex (PFC) pyramidal neurons in vitro. Has no effect on NMDA- or kainate-evoked currents; also has no effect on K⁺ or Na⁺ ion channels. Potentiates PFC glutamatergic synaptic transmission in vitro and in vivo. Induces neurite growth in combination with (S)-AMPA (Cat. No. 0254) in SH-SY5Y human neuroblastoma cells in vitro. Also reduces MPTP-induced toxicity in mice. Brain penetrant.

Physical and Chemical Properties:

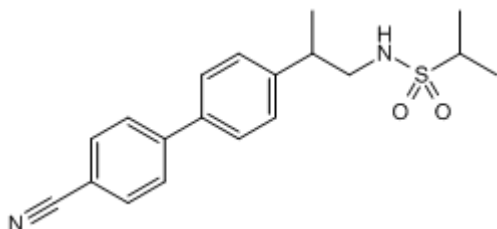
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Batch Molecular Weight: 342.46

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Voss et al (2007) Molecular mechanisms of neurite growth with AMPA receptor potentiation. *Neuropharmacology* **52** 590. PMID: 17101156.

O'Neill et al (2004) Neurotrophic actions of the novel AMPA receptor potentiator, LY404187, in rodent models of Parkinson's disease. *Eur.J.Pharmacol.* **486** 163. PMID: 14975705.

Quirk and Nisenbaum (2002) LY404187: a novel positive allosteric modulator of AMPA receptors. *CNS Drug Rev.* **8** 255. PMID: 12353058.

Baumbarger et al (2001) Positive modulation of alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA) receptors in prefrontal cortical pyramidal neurons by a novel allosteric potentiator. *J.Pharmacol.Exp.Ther.* **298** 86. PMID: 11408529.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol 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.

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