Certificate of Analysis

Product Name: **SDZ 220-581** **Catalog No.: 1250** **Batch No.: 11**

CAS Number: 174575-17-8

IUPAC Name: (*S*)-α-Amino-2'-chloro-5-(phosphonomethyl)[1,1'-biphenyl]-3-propanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{17}ClNO_5P.¼H_2O$

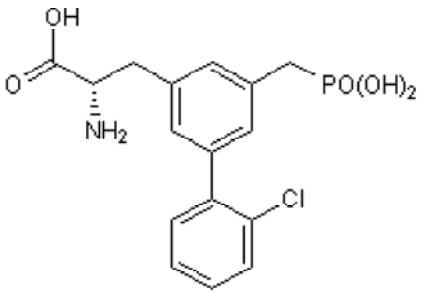
Batch Molecular Weight: 374.24

Physical Appearance: White solid

Solubility: DMSO to 25 mM with gentle warming
1.1eq. NaOH to 100 mM
1eq. HCl to 10 mM with gentle warming

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.7 (IPA/H2O/aq.NH3 (6:3:1))

HPLC: Shows 98.0% purity

Chiral HPLC: Shows 99.5% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D$ = -7.2 (Concentration = 1, Solvent = 6N HCl)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.35	4.71	3.74
Found	51.44	4.6	3.8

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Description:

Competitive NMDA receptor antagonist (pK_i = 7.7). Centrally active following oral administration (ED_{50} < 3.2 mg/kg for protection against MES-induced seizures).

Physical and Chemical Properties:

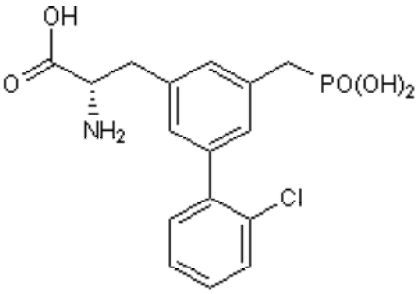
Batch Molecular Formula: $C_{16}H_{17}ClNO_5P.¼H_2O$

Batch Molecular Weight: 374.24

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 25 mM with gentle warming
1.1eq. NaOH to 100 mM
1eq. HCl to 10 mM with gentle warming

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.

Licensing Information:

Sold with the permission of Novartis Pharma AG

References:

Bakshi *et al* (1999) Disruption of prepulse inhibition and increases in locomotor activity by competitive N-MthD.-aspartate receptor antagonists in rats. J.Pharmacol.Exp.Ther. ***288*** 643. PMID: 9918570.

Urwyler *et al* (1996) Biphenyl-derivatives of 2-amino-7-phosphono-heptanoic acid, a novel class of potent competitive *N*-MthD.-aspartate receptor antagonists - I. Pharmacological characterization *in vitro*. Neuropharmacology ***35*** 643. PMID: 8887974.

Urwyler *et al* (1996) Biphenyl-derivatives of 2-amino-7-phosphono-heptanoic acid, a novel class of potent competitive *N*-MthD.-aspartate receptor antagonists - II. Pharmacological characterization *in vivo*. Neuropharmacology ***35*** 655. PMID: 8887975.