

# **Certificate of Analysis**

Print Date: Jan 7th 2016

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Product Name: SCH 50911 Catalog No.: 0984 Batch No.: 18

CAS Number: 733717-87-8

IUPAC Name: (2S)-(+)-5,5-Dimethyl-2-morpholineacetic acid

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C<sub>8</sub>H<sub>15</sub>NO<sub>3</sub>.½H<sub>2</sub>O

**Batch Molecular Weight:** 182.22 **Physical Appearance:** White solid

Solubility: water to 100 mM

phosphate buffered saline to 100 mM

Storage: Desiccate at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: R<sub>f</sub> = 0.5 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])

<sup>1</sup>H NMR: Consistent with structure Mass Spectrum: Consistent with structure

**Optical Rotation:**  $[\alpha]_D = +18.7$  (Concentration = 1, Solvent = 0.1M HCl)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 52.73 8.85 7.69 Found 52.74 8.96 7.7



# **Product Information**

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CAS Number: 733717-87-8

**IUPAC Name:** (2S)-(+)-5,5-Dimethyl-2-morpholineacetic acid

## **Description:**

A selective, competitive and orally active GABA<sub>B</sub> antagonist. Displays an IC<sub>50</sub> of 1.1 µM at GABA<sub>B</sub>, approximately 60 times that of CGP 35348 (Cat. No. 1245) and no binding affinity for GABA $_{A}$  at concentrations up to 100  $\mu$ M.

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>8</sub>H<sub>15</sub>NO<sub>3</sub>.1/2H<sub>2</sub>O

Batch Molecular Weight: 182.22 Physical Appearance: White solid

Minimum Purity: >98%

#### **Batch Molecular Structure:**

Storage: Desiccate at -20°C

#### Solubility & Usage Info:

water to 100 mM

phosphate buffered saline to 100 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:

Bolser et al (1995) The pharmacology of SCH 50911: a novel, orally active GABA-B receptor antagonist. J.Pharmacol.Exp.Ther. 274 1393. PMID: 7562513.

Hosford et al (1995) Characterization of the antiabsence effects of SCH 50911, a GABA<sub>B</sub> receptor antagonist, in the lethargic mouse, γhydroxybutyrate, and pentylenetetrazole models. J.Pharmacol. Exp.Ther. 274 1399. PMID: 7562514.

Blythin et al (1996) Substituted morpholine-2S-acetic acid derivatives: SCH 50911 and related compounds as novel GABA<sub>B</sub> antagonists. Bioorg Med.Chem.Lett. 6 1529.

Ong et al (1998) The morpholino-acetic acid analogue Sch 50911 is a selective GABA<sub>B</sub> receptor antagonist in rat neocortical slices. Eur.J.Pharmacol. 362 35. PMID: 9865527.