

Certificate of Analysis

Print Date: Sep 24th 2018

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Product Name: CI-HIBO Catalog No.: 1673 Batch No.: 1

CAS Number: 909400-43-7

IUPAC Name: (RS)-2-Amino-3-(4-chloro-3-hydroxy-5-isoxazolyl)propionic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_6H_7CIN_2O_4.H_2O$

Batch Molecular Weight: 224.61

Physical Appearance: Pale brown solid **Solubility:** water to 20 mM

phosphate buffered saline to 20 mM

1eq. NaOH to 100 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: R_f = 0.5 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])

Melting Point:Between 184 - 187°C(dec)HPLC:Shows >99.9% purity

¹H NMR: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 32.09 4.04 12.47 Found 32.19 4.02 12.37



Product Information

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IUPAC Name: (RS)-2-Amino-3-(4-chloro-3-hydroxy-5-isoxazolyl)propionic acid

Description:

Subtype-selective and strongly desensitizing AMPA receptor agonist; selective for GluA1 and GluA2 subunit-containing receptors (EC $_{50}$ values are 4.7, 1.7, 2700 and 1300 μ M for rat recombinant homomeric GluA1-4 receptors respectively). Please refer to IUPHAR Guide to Pharmacology for the most recent naming conventions.

Physical and Chemical Properties:

Batch Molecular Formula: C₆H₇CIN₂O₄.H₂O

Batch Molecular Weight: 224.61

Physical Appearance: Pale brown solid

Minimum Purity: >99%

Batch Molecular Structure:

$$CO_2H$$
 OH O

Storage: Store at RT

Solubility & Usage Info:

water to 20 mM

phosphate buffered saline to 20 mM

1eq. NaOH 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:

Bjerrum *et al* (2003) Design, synthesis, and pharmacology of a highly subtype-selective GluR1/2 agonist, (*RS*-2-amino-3-(4-chloro-3-hydroxy-5-isoxazolyl)propionic acid (CI-HIBO). J.Med.Chem. *46* 2246. PMID: 12747796.

Kristensen *et al* (2002) Pharmacological characterization of 4-chlorohomoibotenic acid: a GluR1 and -2 subtype-selective agonist. Soc.Neurosci.Abstr. 540.7.