

Certificate of Analysis

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Product Name: (R)-(+)-HA-966

Catalog No.: 0281

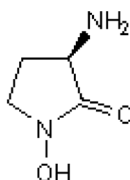
Batch No.: 12

CAS Number: 123931-04-4

IUPAC Name: (R)-(+)-3-Amino-1-hydroxypyrrolidin-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄H₈N₂O₂
Batch Molecular Weight: 116.12
Physical Appearance: White solid
Solubility: water to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.6 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])
HPLC: Shows 99.8% purity
Chiral HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +105.4 (Concentration = 1, Solvent = Water)
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	41.37	6.94	24.12
Found	41.23	7.1	23.97

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

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

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Batch No.: 12

CAS Number: 123931-04-4

IUPAC Name: (R)-(+)-3-Amino-1-hydroxypyrrolidin-2-one

Description:

(R)-(+)-HA-966 is an antagonist/partial agonist at the glycine site of the NMDA receptor; able to cross the blood-brain barrier.

Physical and Chemical Properties:

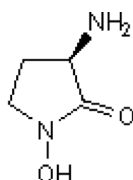
Batch Molecular Formula: C₄H₈N₂O₂

Batch Molecular Weight: 116.12

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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 Merck Sharp and Dohme Ltd.

References:

Kemp and Priestley (1991) Effects of (+)-HA-966 and 7-chlorokynurenic acid on the kinetics of N-MthD.-aspartate receptor agonist responses in cat cultured cortical neurons. *Mol.Pharmacol.* **39** 666. PMID: 1674587.

Pullan *et al* (1991) Agonist-like character of the (R) enantiomer of 1-hydroxy-3-amino-pyrrolid-2-one (HA-966). *Eur.J.Pharmacol.* **208** 25. PMID: 1834473.

Pullan *et al* (1990) Stereoselectivity for the (R)-enantiomer of HA-966 (1-hydroxy-3-aminopyrrolidone-2) at the glycine site of the N-MthD.-aspartate receptor complex. *J.Neurochem.* **55** 1346. PMID: 1975835.

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