

Certificate of Analysis

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Product Name: L-Quisqualic acid

Catalog No.: 0188

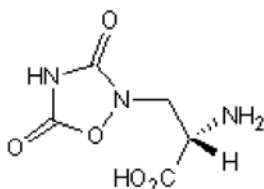
Batch No.: 34

CAS Number: 52809-07-1

IUPAC Name: (L)-(+)- α -Amino-3,5-dioxo-1,2,4-oxadiazolidine-2-propanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅H₇N₃O₅
Batch Molecular Weight: 189.13
Physical Appearance: White solid
Solubility: 1eq. NaOH to 100 mM
 water to 10 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])
Chiral HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
 Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +16 (Concentration = 1, Solvent = 6N HCl)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	31.75	3.73	22.22
Found	31.72	3.7	22.06

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

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IUPAC Name: (L)-(+)- α -Amino-3,5-dioxo-1,2,4-oxadiazolidine-2-propanoic acid

Description:

Glutamate receptor agonist acting at AMPA receptors and metabotropic glutamate receptors positively linked to phosphoinositide hydrolysis. Sensitizes neurons in hippocampus to depolarization by L-AP6 (the so called 'quis' effect). Also available as part of the Group I mGlu Receptor Tocriset™.

Physical and Chemical Properties:

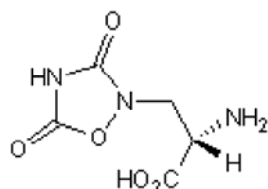
Batch Molecular Formula: C₅H₇N₃O₅

Batch Molecular Weight: 189.13

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

1eq. NaOH to 100 mM water to 10 mM

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Littman *et al* (1995) Effects of quisqualic acid analogs on metabotropic glutamate receptors coupled to phosphoinositide hydrolysis in rat hippocampus. *Neuropharmacology* **34** 829. PMID: 8532164.

Schulte *et al* (1994) Utilization of the resolved L-isomer of 2-amino-6-phosphohexanoic acid (L-AP6) as a selective agonist for a quisqualate-sensitized site in hippocampal CA1 pyramidal neurons. *Brain Res.* **649** 203. PMID: 7953634.

Porter *et al* (1992) (S)-Homoquisqualate: a potent agonist at the glutamate metabotropic receptor. *Br.J.Pharmacol.* **106** 509. PMID: 1324071.

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