

## Certificate of Analysis

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**Product Name:** D-Glutamic acid

**Catalog No.:** 0217

**Batch No.:** 12

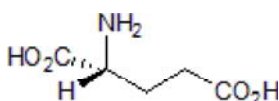
CAS Number: 6893-26-1

EC Number: 230-000-8

IUPAC Name: (R)-1-Aminopropane-1,3-dicarboxylic acid

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>5</sub>H<sub>9</sub>NO<sub>4</sub>  
**Batch Molecular Weight:** 147.13  
**Physical Appearance:** White solid  
**Solubility:** 1eq. NaOH to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**Melting Point:** Between 200 - 202°C  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = -32 (Concentration = 10, Solvent = 2N HCl)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	40.82	6.17	9.52
Found	40.79	6.05	9.46

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

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**Batch No.:** 12

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IUPAC Name: (R)-1-Aminopropane-1,3-dicarboxylic acid

**Description:**

Excitatory amino acid acting at NMDA receptors; less active than the L-isomer. L-isomer also available.

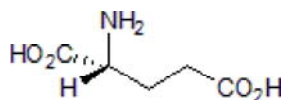
**Physical and Chemical Properties:**

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Batch Molecular Weight: 147.13

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

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:**

**Olverman *et al*** (1988) Structure/activity relations of N-methyl-D-aspartate receptor ligands as studied by their inhibition of [<sup>3</sup>H]-D-2-amino-5-phosphonopentanoic acid binding in rat brain membranes. *Neuroscience* **26** 17. PMID: 2901691.

**Watkins** (1986) Twenty five years of excitatory amino acid research. *Excitatory Amino Acids*. Eds. Roberts et al. Macmillan p1-39.

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