DL-Glutamic acid monohydrate

Product Number G1126
Store at Room Temperature

**Product Description**
Molecular Formula: C₅H₉NO₄ • H₂O
Molecular Weight: 165.1
CAS Number: 19285-83-7
Melting Point: 225-227 °C (with decomposition)
Synonyms: DL-glutaminic acid, DL-α-aminoglutaric acid; DL-1-aminopropane-1,3-dicarboxylic acid

Glutamic acid is a non-essential amino acid that is also an excitatory amino acid (EAA) because of its role in neurotransmission. Its name derives from its historical isolation from wheat gluten. A detailed review of the chemistry of glutamic acid has been published.

DL-Glutamic acid has been used as an energy source in the isolation of cultured *Thiobacillus acidophilus*. It has been utilized as a supplement in the diet of chicks and been shown to lead to grown depression.

DL-Glutamic acid has been utilized as a nitrogen source for the culture of nematode eggs from Arkansas Fungus 18 (ARF18) and *Pochonia chlamydospora var. chlamydospora*.

A method for the analysis of DL-glutamic acid and other amino acids via copper(II) ion, hydrogen peroxide, and pyrocatechol violet has been published. The resolution of DL-glutamic acid as its acetyl derivative through the use of porcine renal acylase I has been reported.

DLGlutamic acid has been used as a starting material for the synthesis of imidazo[1,5-a]quinoloxaline amides and carbamates that bind with high affinity to the GABA₅/benzodiazepine receptor in cultured SF 9 cells.

**Precautions and Disclaimer**
For Laboratory Use Only. Not for drug, household or other uses.

**Preparation Instructions**
This product is soluble in 1 M HCl (100 mg/ml), yielding a clear, colorless solution.

**References**
1. The Merck Index, 12th ed., Entry# 4477.

Sigma brand products are sold through Sigma-Aldrich, Inc. Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.