

Catalog Number: 101791, 101793, 101796, 101799, 101800, 194675, 194676, 194677

Glutamic Acid

Structure (free acid):

D-Glutamic Acid



L-Glutamic Acid



	D Form, free acid	DL Form, free acid, Monohydrate	L Form, free acid	L Form, hydrochloride	L Form, monosodium salt
Molecular Formula	C ₅ H ₉ NO ₄	C ₅ H ₉ NO ₄ ·H ₂ O	C ₅ H ₉ NO ₄	C ₅ H ₉ NO ₄ ·HCl	C ₅ H ₈ NO ₄ Na
Molecular Weight	147.1	165.1	147.1	183.6	169.1
CAS #	6893-26-1	617-65-2	56-86-0	138-15-8	142-47-2

	Synonyms
D Form, free acid	D-2-Aminopentanedioic acid; D-a-Aminoglutaric acid; (R)-(-)-glutamic acid; D-Glu; R-2-Aminopentanedioic acid; Glu; E
DL Form, free acid, monohydrate	DL-2-Aminopentanedioic acid; DL-a-Aminoglutaric acid; (±)-2-Aminopentanedioic acid; Glu; E
L Form, free acid	L-2-Aminopentanedioic acid; (S)-(+)-glutamic acid; L-Glu; Glu; (S)-2-Aminopentanedioic acid; a-aminoglutaric acid; 1-aminopropane-1,3-dicarboxylic acid; Glu; E
L Form, hydrochloride	L-2-Aminopentanedioic acid hydrochloride; Glu; E
L Form, monosodium salt	Monosodium glutamate; MSG; Glu; E

Description: Non-essential amino acid for human development; referred to as an excitatory amino acid (EAA) due to its role in neurotransmission.¹ Acts as a neurotransmitter at fast synapses; agonist at kainate, NMDA and quisqualate receptors.

Solubility:

L Form: Soluble in water (8.64 g/L at room temperature; 140 g/L in boiling water); insoluble in methanol, ethanol, ether, acetone, cold glacial acetic acid and common neutral solvents.

DL Form: Soluble in water (20.54 g/l at room temperature; 284.9 g/L in boiling water). Sparingly soluble in alcohol or ether.

L Form, Monosodium Salt: Very water soluble; sparingly soluble in alcohol

Availability:

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Catalog Number	Description	Size
101796	D-Glutamic Acid, Free acid	1 g 5 g 25 g 100 g
101791	DL-Glutamic Acid, Free acid, Monohydrate	10 g 25 g 100 g 1 kg
194675	DL-Glutamic Acid, Free acid, Monohydrate, cell culture reagent	10 g 25 g 100 g 1 kg
101793	L-Glutamic Acid, Free acid	100 g 500 g 1 kg 5 kg
194676	L-Glutamic Acid, Free acid, cell culture reagent	500 g 1 kg 5 kg
101799	L-Glutamic Acid, Hydrochloride	100 g 500 g 1 kg
101800	L-Glutamic Acid, Monosodium salt	100 g 500 g 1 kg
194677	L-Glutamic Acid, Monosodium salt, cell culture reagent	100 g 500 g 1 kg

Reference:

1. *Merck Index*, **12th Ed.**, No. 4477.