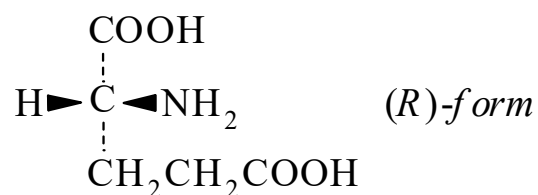




>>Entry Name: Glutamic acid

Synonym(s): 2-Aminopentanedioic acid, 9CI. 2-Aminoglutaric acid. Glutaminic acid. Glu. FEMA 3285



CAS Registry Number: 6899-05-4

Related CAS Registry Numbers(s): 997-42-2 5996-22-5 7558-63-6 11070-68-1 19285-83-7 21752-29-4 24938-00-9 25513-46-6 25683-11-8 63663-21-8

Molecular Formula: $\text{C}_5\text{H}_9\text{NO}_4$

Molecular Weight: 147.13

Accurate Mass: 147.053159

Percentage Composition: C 40.82%; H 6.17%; N 9.52%; O 43.50%

>>Variant: (R)-form

Synonym(s): D-form

CAS Registry Number: 6893-26-1

Molecular Formula: $\text{C}_5\text{H}_9\text{NO}_4$

Molecular Weight: 147.13

Accurate Mass: 147.053159

Percentage Composition: C 40.82%; H 6.17%; N 9.52%; O 43.50%

Biological Source: Component of bacterial cell proteins and peptidolipids

Physical Description: Leaflets (H_2O)

Melting Point: Mp 213° (dec., rapid heating)

Optical Rotation: $[\alpha]_{\text{D}}^{26} -12.9$ (H_2O). $[\alpha]_{\text{D}} +31$ (aq. HCl)

Other Data: Tasteless

Aldrich: 85735-1

Fluka: 49460

Sigma: G1001

>>Derivative: Hydrochloride

CAS Registry Number: 617-61-8

Physical Description: Prisms (HCl aq.)

Melting Point: Mp 209° (dec.)

Optical Rotation: $[\alpha]_{\text{D}}^{20} -24.5$ (H_2O)

>>Derivative: 1-Me ester

CAS Registry Number: 26566-13-2

Molecular Formula: $\text{C}_6\text{H}_{11}\text{NO}_4$

Molecular Weight: 161.157

Accurate Mass: 161.068809

Percentage Composition: C 44.72%; H 6.88%; N 8.69%; O 39.71%

Melting Point: Mp 148-149°

Optical Rotation: $[\alpha]_{\text{D}}^{20} -34$ (c, 3.8 in H_2O)

>>Derivative: 5-Me ester

CAS Registry Number: 6461-04-7

Molecular Formula: $\text{C}_6\text{H}_{11}\text{NO}_4$

Molecular Weight: 161.157

Accurate Mass: 161.068809

Percentage Composition: C 44.72%; H 6.88%; N 8.69%; O 39.71%

Optical Rotation: $[\alpha]_{\text{D}}^{25} -13.6$ (c, 3 in H_2O)

>>Derivative: 5-Me ester; hydrochloride

CAS Registry Number: 27025-22-5

Melting Point: Mp 156-158°

Optical Rotation: $[\alpha]_{\text{D}}^{20} -24.2$ (c, 9.4 in H_2O)