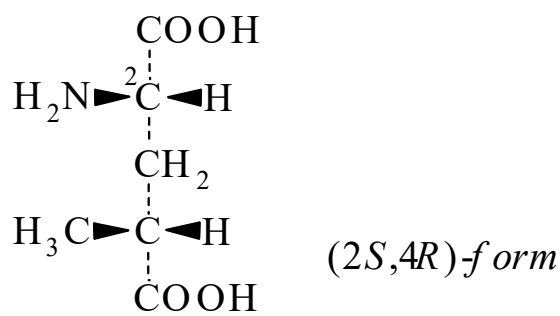




>>Entry Name: 2-Amino-4-methylpentanedioic acid

Synonym(s): 4-Methylglutamic acid, 9Cl. γ -Methylglutamic acid. 2-Amino-4-methylglutaric acid



CAS Registry Number: 14561-55-8

Related CAS Registry Numbers(s): 2596-04-5 38523-28-3 59685-03-9 77842-39-8

Molecular Formula: C₆H₁₁NO₄

Molecular Weight: 161.157

Accurate Mass: 161.068809

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

Biological Use/Importance: Ionotropic glutamate (kainate) receptor agonist

Physical Description: Cryst. (H₂O)

Melting Point: Mp 155-158°

>>Variant: (2*S*,4*R*)-form

Synonym(s): SYM 2081

CAS Registry Number: 31137-74-3

Molecular Formula: C₆H₁₁NO₄

Molecular Weight: 161.157

Accurate Mass: 161.068809

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

Biological Source: Found in the fern *Phyllitis scolopendrium* and *Asplenium bulbiferum* and tulips

Melting Point: Mp 174°

Optical Rotation: $[\alpha]_D^{25} +21.4$ (c, 2.62 in 6*M* DCl). $[\alpha]_D -1.9$ (H₂O)

Other Data: Pharmacol. active isomer

>>Variant: (2*S*,4*S*)-form

CAS Registry Number: 6141-27-1

Molecular Formula: C₆H₁₁NO₄

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 166-167°

Optical Rotation: $[\alpha]_D^{25} +36.3$ (c, 2.58 in 6*M* HCl)

>>Variant: (2*ξ*,4*ξ*)-form

Molecular Formula: C₆H₁₁NO₄

Molecular Weight: 161.157

Accurate Mass: 161.068809

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

>>Derivative: 5-Nitrile

Synonym(s): 2-Amino-4-cyanopentanoic acid. 4-Cyanonorvaline. TAN 1434. Antibiotic TAN 1434

CAS Registry Number: 150571-06-5

Molecular Formula: C₆H₁₀N₂O₂

Molecular Weight: 142.157

Accurate Mass: 142.074228

Percentage Composition: C 50.69%; H 7.09%; N 19.71%; O 22.51%

Source/Synthesis: Prod. by *Streptomyces* sp.

Use/Importance: Antifungal agent

Solubility: BERDY SOL: Sol. H₂O; fairly sol. MeOH, EtOH

UV: [neutral] $\lambda_{\max}$ (H₂O) (Berdy)

References: