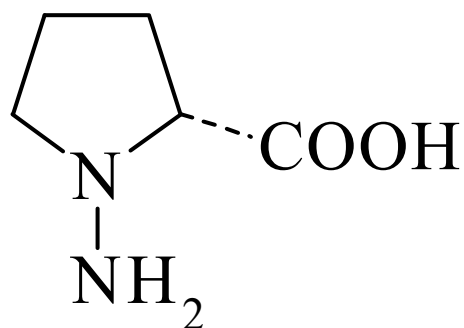




>>Entry Name: 1-Amino-2-pyrrolidinecarboxylic acid

Synonym(s): 1-Aminoproline, 9CI



(*R*)-form

Molecular Formula: C₅H₁₀N₂O₂

Molecular Weight: 130.146

Accurate Mass: 130.074228

Percentage Composition: C 46.14%; H 7.74%; N 21.52%; O 24.59%

Use/Importance: Vitamin B₆ antagonist. Antibacterial

Calculated Log P Data: Log P -0.97 (calc)

>>Variant: (*R*)-form

Synonym(s): D-form

CAS Registry Number: 10139-05-6

Molecular Formula: C₅H₁₀N₂O₂

Molecular Weight: 130.146

Accurate Mass: 130.074228

Percentage Composition: C 46.14%; H 7.74%; N 21.52%; O 24.59%

Physical Description: Pale yellow cryst. (EtOH)

Melting Point: Mp 155 dec.°

Optical Rotation: $[\alpha]_{\text{D}}^{25} +113$ (c, 2 in 0.5M HCl)

>>Derivative: *N*-γ-L-Glutamyl

Synonym(s): 1-[*N*-(γ-L-Glutamyl)amino]-D-proline. **Linatine**

CAS Registry Number: 10139-06-7

Molecular Formula: C₁₀H₁₇N₃O₅

Molecular Weight: 259.261

Accurate Mass: 259.116822

Percentage Composition: C 46.33%; H 6.61%; N 16.21%; O 30.86%

Biological Source: Isol. from *Linum usitatissimum* (flax)

Physical Description: Amorph. solid

Optical Rotation: $[\alpha]_{\text{D}}^{24} +46.4$ (c, 2.75 in H₂O)

Solubility: BERDY SOL: Sol. H₂O; poorly sol. butanol, hexane

>>Variant: (*S*)-form

Synonym(s): L-form

CAS Registry Number: 15265-22-2

Molecular Formula: C₅H₁₀N₂O₂

Molecular Weight: 130.146

Accurate Mass: 130.074228

Percentage Composition: C 46.14%; H 7.74%; N 21.52%; O 24.59%

Melting Point: Mp 155-156°

Optical Rotation: $[\alpha]_{\text{D}}^{24} -111$ (c, 1.6 in 0.5M HCl)

References:

Parsons, J.L. *et al.*, *Antimicrob. Agents Chemother.*, 1967, 415

Klosterman, H.J. *et al.*, *Biochemistry*, 1967, **6**, 170, (*synth*)

Achiwa, K. *et al.*, *Tet. Lett.*, 1974, 1799, (*synth*)

Klosterman, H.J., *Methods Enzymol.*, 1979, **62**, 483, (*props*)