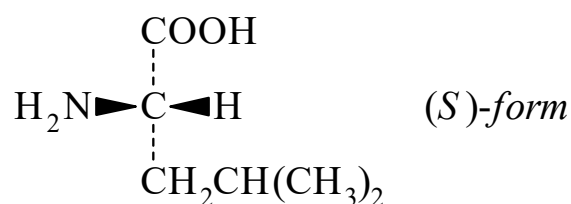




>>Entry Name: Leucine, 9CI, USAN

ENTRY UNDER REVIEW

Synonym(s): 2-Amino-4-methylpentanoic acid. 2-Aminoisocaproic acid. 4-Methylnorvaline. Leu. Chenopodine



CAS Registry Number: 7005-03-0

Related CAS Registry Numbers(s): 328-38-1 5845-53-4 10466-61-2 13366-40-0

Molecular Formula: C₆H₁₃NO₂

Molecular Weight: 131.174

Accurate Mass: 131.094629

Percentage Composition: C 54.94%; H 9.99%; N 10.68%; O 24.39%

Optical Rotation: $[\alpha]_{\text{D}}^{16} +14$ (c,1.3 in H₂O)

Calculated Log P Data: Log P -1.67 (calc)

Other Data: Derivs. useful in peptide synth. are listed elsewhere

>>Variant: (R)-form

Synonym(s): D-form

CAS Registry Number: 328-38-1

Molecular Formula: C₆H₁₃NO₂

Molecular Weight: 131.174

Accurate Mass: 131.094629

Percentage Composition: C 54.94%; H 9.99%; N 10.68%; O 24.39%

Physical Description: Plates (EtOH)

Melting Point: Mp 293° (sealed tube)

Optical Rotation: $[\alpha]_{\text{D}}^{20} +11.1$ (H₂O). $[\alpha]_{\text{D}}^{20} -17$ (20% HCl)

Aldrich: 85544-8

Fluka: 61830

Sigma: L7750

>>Derivative: Me ester

CAS Registry Number: 23032-21-5

Molecular Formula: C₇H₁₅NO₂

Molecular Weight: 145.201

Accurate Mass: 145.110279

Percentage Composition: C 57.90%; H 10.41%; N 9.65%; O 22.04%

Melting Point: Mp 149-150° (as hydrochloride)

>>Derivative: N-Ac

CAS Registry Number: 19764-30-8

Molecular Formula: C₈H₁₅NO₃

Molecular Weight: 173.211

Accurate Mass: 173.105194

Percentage Composition: C 55.47%; H 8.73%; N 8.09%; O 27.71%

Melting Point: Mp 112-114°

Optical Rotation: $[\alpha]_{\text{D}}^{23} +23.2$ (EtOH)

>>Derivative: N-Benzoyl

CAS Registry Number: 57357-55-8

Molecular Formula: C₁₃H₁₇NO₃

Molecular Weight: 235.282

Accurate Mass: 235.120844

Percentage Composition: C 66.36%; H 7.28%; N 5.95%; O 20.40%

Physical Description: Cryst. + ½H₂O (Et₂O/petrol)

Melting Point: Mp 60°. Mp 105-107° (anhyd.)