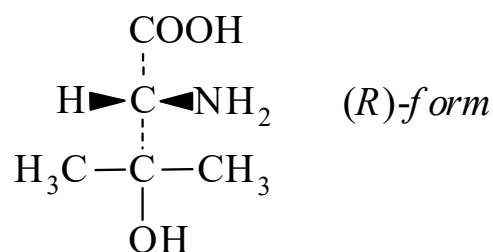




>>Entry Name: 2-Amino-3-hydroxy-3-methylbutanoic acid

Synonym(s): 3-Hydroxyvaline, 9Cl. 2-Amino-3-hydroxyisovaleric acid



CAS Registry Number: 5174-30-1

Molecular Formula: $\text{C}_5\text{H}_{11}\text{NO}_3$

Molecular Weight: 133.147

Accurate Mass: 133.073894

Percentage Composition: C 45.10%; H 8.33%; N 10.52%; O 36.05%

>>Variant: (R)-form

Synonym(s): D-form

CAS Registry Number: 2280-48-0

Molecular Formula: $\text{C}_5\text{H}_{11}\text{NO}_3$

Molecular Weight: 133.147

Accurate Mass: 133.073894

Percentage Composition: C 45.10%; H 8.33%; N 10.52%; O 36.05%

Melting Point: Mp 205°

Optical Rotation: $[\alpha]_{\text{D}}^{20} +4.7$ (c, 4.82 in 5M HCl). $[\alpha]_{\text{D}}^{25} -13.5$ (c, 4.82 in 5M HCl)

>>Derivative: N-Benzoyl

Molecular Formula: $\text{C}_{12}\text{H}_{15}\text{NO}_4$

Molecular Weight: 237.255

Accurate Mass: 237.100109

Percentage Composition: C 60.75%; H 6.37%; N 5.90%; O 26.97%

Melting Point: Mp 112°

Optical Rotation: $[\alpha]_{\text{D}}^{25} -30.5$ (c, 2.01 in EtOH)

>>Variant: (S)-form

Synonym(s): L-form

CAS Registry Number: 2280-27-5

Molecular Formula: $\text{C}_5\text{H}_{11}\text{NO}_3$

Molecular Weight: 133.147

Accurate Mass: 133.073894

Percentage Composition: C 45.10%; H 8.33%; N 10.52%; O 36.05%

Use/Importance: Constit. amino acid of antibiotics Zorbamycin [CJP28-P](#) and Antibiotic YA 56Y [CKR15-A](#)

Melting Point: Mp 205°

Optical Rotation: $[\alpha]_{\text{D}}^{20} +4.7$

>>Variant: (±)-form

CAS Registry Number: 2280-28-6

Molecular Formula: $\text{C}_5\text{H}_{11}\text{NO}_3$

Molecular Weight: 133.147

Accurate Mass: 133.073894

Percentage Composition: C 45.10%; H 8.33%; N 10.52%; O 36.05%

Physical Description: Plates (EtOH aq. or MeOH)

Melting Point: Mp 221-223°

>>Derivative: N-Benzoyl

Melting Point: Mp 156 dec.°