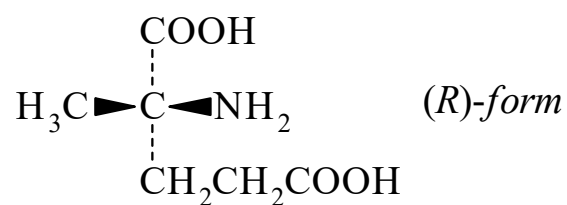




>>Entry Name: 2-Amino-2-methylpentanedioic acid

Synonym(s): α -Methylglutamic acid



CAS Registry Number: 71-90-9

Related CAS Registry Numbers(s): 103825-57-6 151075-03-5

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%

Aldrich: 14894-6

Sigma: M9626

>>Variant: (R)-form

CAS Registry Number: 4493-08-7

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%

Physical Description: Oil

Optical Rotation: $[\alpha]_{\text{D}}^{20} +10$ (c, 0.19 in H_2O). $[\alpha]_{436}^{25} -22.4$ (c, 2.8 in 6M HCl)

>>Variant: (S)-form

Synonym(s): L-form

CAS Registry Number: 6208-95-3

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%

Physical Description: Amorph. solid

Melting Point: Mp 177-180° (as hydrochloride)

Optical Rotation: $[\alpha]_{\text{D}} +12.1$ (c, 4 in 6M HCl). $[\alpha]_{\text{D}}^{20} -9$ (c, 0.1 in H_2O)

>>Variant: ($\pm$)-form

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%

Physical Description: Cryst. (H_2O)

Melting Point: Mp 169°

References:

- Aldrich Library of NMR Spectra*, 2nd edn., 1983, **1**, 498A, (*nmr*)
Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 591A, (*ir*)
Smrt, J. *et al.*, *Coll. Czech. Chem. Comm.*, 1953, **18**, 131, (*synth*)
Izumi, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1965, **38**, 1338, (*resoln*)
Aebi, J.D. *et al.*, *Helv. Chim. Acta*, 1985, **68**, 1507, (*synth*, *ir*, *pmr*)
Colson, P.-J. *et al.*, *J.O.C.*, 1993, **58**, 5918, (*synth*)
Obrecht, D. *et al.*, *Tetrahedron*, 1995, **51**, 10883, (*synth*, *pmr*)
Abellan, T. *et al.*, *Tetrahedron: Asymmetry*, 1998, **9**, 2211-2214, (*S*-form, *synth*)
Chinchilla, R. *et al.*, *Synthesis*, 1999, 704-717, (*synth*, *pmr*)