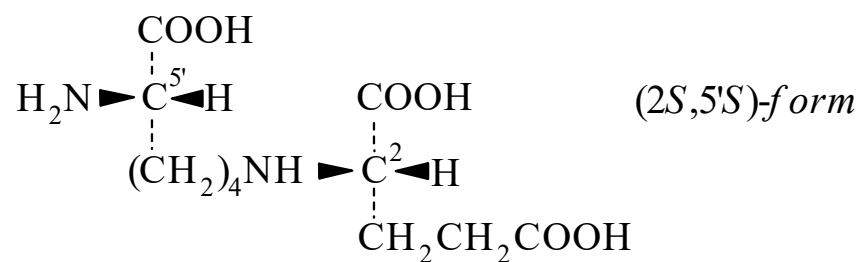




>>Entry Name: Saccharopine

ENTRY UNDER REVIEW

Synonym(s): *N*-(5-Amino-5-carboxypentyl)glutamic acid, 9CI



CAS Registry Number: 13429-91-9

Molecular Formula: C₁₁H₂₀N₂O₆

Molecular Weight: 276.289

Accurate Mass: 276.132138

Percentage Composition: C 47.82%; H 7.30%; N 10.14%; O 34.74%

Use/Importance: A lysine precursor in the Aminoadipic acid-lysine pathway in yeasts

>>Variant: (2*S*,5'*S*)-form

Synonym(s): L-form

CAS Registry Number: 997-68-2

Molecular Formula: C₁₁H₂₀N₂O₆

Molecular Weight: 276.289

Accurate Mass: 276.132138

Percentage Composition: C 47.82%; H 7.30%; N 10.14%; O 34.74%

Physical Description: Laths (H₂O)

Melting Point: Mp 257-259 dec.°

Optical Rotation: $[\alpha]_{\text{D}}^{23} +33.6$ (c, 1 in 0.5*N* HCl) (c, 2.2 in 0.5*N* NaOH)

pKa Value: p*K*_{a4} 9.2; p*K*_{a5} 10.3

UV: [neutral] λ_{max} (MeOH) (Berdy)

Sigma: S1634

>>Variant: (2*R*,5'*S*)-form

Synonym(s): D-Allo-form

Molecular Formula: C₁₁H₂₀N₂O₆

Molecular Weight: 276.289

Accurate Mass: 276.132138

Percentage Composition: C 47.82%; H 7.30%; N 10.14%; O 34.74%

Physical Description: Cryst. (H₂O)

Melting Point: Mp 235-250 dec.°

Optical Rotation: $[\alpha]_{\text{D}}^{23} -0.8$ (c, 0.4 in 0.5*N* HCl)

References:

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Oka, Y. *et al.*, *Agric. Biol. Chem.*, 1979, **43**, 1995, (*isol*)

Griffin, M. *et al.*, *Clin. Chim. Acta*, 1982, **125**, 89, (*hplc*)

Burkard, U. *et al.*, *Annalen*, 1986, 1030, (*synth*)