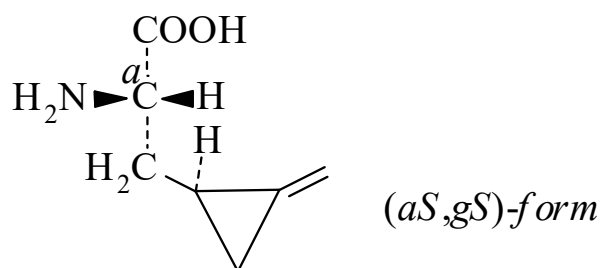




>>Entry Name: Hypoglycin A

ENTRY UNDER REVIEW

Synonym(s): α -Amino-2-methylenecyclopropanepropanoic acid, 9Cl. 2-Amino-3-(methylenecyclopropyl)propanoic acid. Hypoglycine



Molecular Formula: C₇H₁₁NO₂

Molecular Weight: 141.169

Accurate Mass: 141.078979

Percentage Composition: C 59.56%; H 7.85%; N 9.92%; O 22.67%

Calculated Log P Data: Log P -2.12 (calc)

>>Variant: (α S, γ S)-form

Synonym(s): L-form

CAS Registry Number: 156-56-9

Molecular Formula: C₇H₁₁NO₂

Molecular Weight: 141.169

Accurate Mass: 141.078979

Percentage Composition: C 59.56%; H 7.85%; N 9.92%; O 22.67%

Biological Source: Isol. from the unripe fruit of akee apple (*Blighia sapida*)

Use/Importance: Toxin responsible for 'Jamaican vomiting sickness'

Physical Description: Plates (MeOH aq.)

Melting Point: Mp 280-284°

Optical Rotation: [α]_D²⁶ +11 (c, 1.0 in H₂O). [α]_D +49 (c, 1.0 in H₂O at pH2)

Solubility: BERDY SOL: Sol. H₂O

UV: [neutral] $\lambda_{\max}$ (H₂O) (Berdy)

Hazard & Toxicity: Poisonous by ingestion (gastrointestinal, hypoglycaemic, CNS, death). LD₅₀ (rat, orl) 98 mg/kg. Exp. reprod. and teratogenic effects. Suggested antidote glycine

>>Variant: (α RS, γ RS)-form

Synonym(s): ($\pm$)-form

Molecular Formula: C₇H₁₁NO₂

Molecular Weight: 141.169

Accurate Mass: 141.078979

Percentage Composition: C 59.56%; H 7.85%; N 9.92%; O 22.67%

Physical Description: Leaflets (Me₂CO aq.)

Melting Point: Mp 300°

References:

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Black, D.K. *et al.*, *Tet. Lett.*, 1963, 1065, (*synth, abs config*)

Billington, D. *et al.*, *Methods Enzymol.*, 1981, **72**, 610, (*rev*)

Sherratt, H.S.A., *Trends Pharmacol. Sci.*, 1986, **7**, 186, (*tox*)

Stammer, H., *Tetrahedron*, 1990, **46**, 2231, (*rev*)

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Baldwin, J.E. *et al.*, *Tetrahedron*, 1994, **50**, 12015, (*synth*)

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