



>>Entry Name: **S-Acetamidomethylcysteine**

Synonym(s): *S*-[(Acetylamino)methyl]cysteine, 9CI

CAS Registry Number: 19647-70-2

AcNHCH₂SCH₂CH(NH₂)COOH

Molecular Formula: C₆H₁₂N₂O₃S

Molecular Weight: 192.238

Accurate Mass: 192.056863

Percentage Composition: C 37.49%; H 6.29%; N 14.57%; O 24.97%; S 16.68%

>>Variant: (S)-form

Synonym(s): L-form

Molecular Formula: C₆H₁₂N₂O₃S

Molecular Weight: 192.238

Accurate Mass: 192.056863

Percentage Composition: C 37.49%; H 6.29%; N 14.57%; O 24.97%; S 16.68%

Use/Importance: Useful *S*-protected deriv. of L-cysteine

Optical Rotation: $[\alpha]_{\text{D}}^{25} -42.5$ (c, 1 in H₂O)

Other Data: Stable to CF₃COOH, HBr/AcOH, HCl/EtOH, HF at 0°

>>Derivative: *N*-*tert*-Butyloxycarbonyl

Melting Point: Mp 110-112°

Optical Rotation: $[\alpha]_{\text{D}}^{25} -35.5$ (c, 1 in H₂O)

>>Derivative: *N*-Hydroxysuccinimide ester

Melting Point: Mp 106-108°

Optical Rotation: $[\alpha]_{\text{D}}^{25} +43$ (c, 1 in CHCl₃)

References:

Veber, D.F. *et al.*, *Tet. Lett.*, 1968, 3057, (*synth*)

Fontana, A. *et al.*, *Chem. Comm.*, 1975, 976, (*use*)

Tomatis, R. *et al.*, *Int. J. Pept. Protein Res.*, 1976, **8**, 65; 79; 87