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

CAS Registry Number: 19647-70-2
$AcNHCH_2SCH_2CH(NH_2)COOH$

Molecular Formula: $C_6H_{12}N_2O_3S$
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: $C_6H_{12}N_2O_3S$
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: $[\alpha]_D^{25}$ –42.5 (c, 1 in H_2O)
Other Data: Stable to CF_3COOH, HBr/AcOH, HCl/EtOH, HF at 0°

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

Melting Point: Mp 110-112°
Optical Rotation: $[\alpha]_D^{25}$ –35.5 (c, 1 in H_2O)

>>**Derivative:** *N*-Hydroxysuccinimide ester

Melting Point: Mp 106-108°
Optical Rotation: $[\alpha]_D^{25}$ +43 (c, 1 in $CHCl_3$)

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