



>>Entry Name: Selenocysteine

ENTRY UNDER REVIEW

Synonym(s): 3-Selenylalanine, 9Cl, 8Cl. 2-Amino-3-selenylpropanoic acid

CAS Registry Number: 3614-08-2

$\text{HSeCH}_2\text{CH}(\text{NH}_2)\text{COOH}$

Molecular Formula: $\text{C}_3\text{H}_7\text{NO}_2\text{Se}$

Molecular Weight: 168.054

Accurate Mass: 168.964199

Percentage Composition: C 21.44%; H 4.20%; N 8.33%; O 19.04%; Se 46.98%

Biological Source: Formed by seleniferous plants, e.g. onion, cabbage and by *Candida albicans*

Other Data: Unstable compd., phys. props. not well documented. Various Se-protected derivs. made

>>Derivative: Se-Me

Synonym(s): 3-(Methylseleno)alanine, 9Cl. Se-Methylselenocysteine. Selenomethylselenocysteine

CAS Registry Number: 2574-71-2

Molecular Formula: $\text{C}_4\text{H}_9\text{NO}_2\text{Se}$

Molecular Weight: 182.081

Accurate Mass: 182.979849

Percentage Composition: C 26.39%; H 4.98%; N 7.69%; O 17.57%; Se 43.37%

Biological Source: Isol. from leaves of *Astragalus bisulcatus*, other *Astragalus* spp., *Stanleya pinnata* and *Oonopsis condensata*

>>Derivative: Diselenide

References:

Painter, E.P., *J.A.C.S.*, 1947, **69**, 229, (*synth*)

Trelease, S.F. *et al.*, *Science (Washington, D.C.)*, 1960, **132**, 618, (*isol*)

Schrift, A. *et al.*, *Biochim. Biophys. Acta*, 1963, **71**, 483; 1965, **100**, 65, (*biosynth*)

Hamilton, J.W., *J. Agric. Food Chem.*, 1975, **23**, 1150, (*isol*)

Stadtman, T.C., *Annu. Rev. Biochem.*, 1996, **65**, 83, (*rev*)