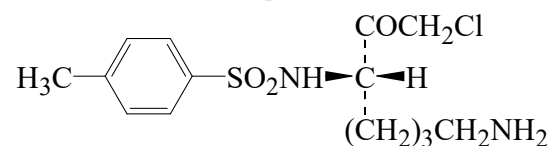




>>Entry Name: *N*-[5-Amino-1-(chloroacetyl)pentyl]-4-methylbenzenesulfonamide, 9Cl

Synonym(s): *N*-[5-Amino-1-(chloroacetyl)pentyl]-*p*-toluenesulfonamide, 8Cl. *N*- α -*p*-Tosylllysine chloromethyl ether. TLCK



CAS Registry Number: 2104-86-1

Extra CAS Registry Numbers(s): 26995-76-6

Molecular Formula: C₁₄H₂₁ClN₂O₃S

Molecular Weight: 332.85

Accurate Mass: 332.09614

Percentage Composition: C 50.52%; H 6.36%; Cl 10.65%; N 8.42%; O 14.42%; S 9.63%

>>Variant: (*S*)-form

Synonym(s): *L*-form

CAS Registry Number: 2364-87-6

Molecular Formula: C₁₄H₂₁ClN₂O₃S

Molecular Weight: 332.85

Accurate Mass: 332.09614

Percentage Composition: C 50.52%; H 6.36%; Cl 10.65%; N 8.42%; O 14.42%; S 9.63%

Use/Importance: Non-competitive inhibitor of proteolytic enzymes such as trypsin, papain, thrombin and protein kinase C. Chymotrypsin is not affected. Inhibits inducible NO-synthetase in alveolar macrophages. May alkylate histidine or cysteine residues at the active site of enzymes

>>Derivative: Hydrochloride

CAS Registry Number: 4272-74-6

Extra CAS Registry Numbers(s): 4238-41-9

Physical Description: Cryst. (EtOH)

Melting Point: Mp 160-161° (dec.)

Optical Rotation: $[\alpha]_D^{22} -9.7$ (c, 5 in H₂O)

References:

- Shaw, E. *et al.*, *Biochemistry*, 1965, **4**, 2219-2224, (*synth, biochem*)
Whitaker, J.R. *et al.*, *Arch. Biochem. Biophys.*, 1968, **124**, 70-78, (*biochem, mechanism*)
Urban, M.K. *et al.*, *Biochemistry*, 1979, **18**, 3952-3960, (*biochem, use*)
Soloman, D.H. *et al.*, *FEBS Lett.*, 1985, **190**, 342-344, (*biochem*)
Jorens, P.G. *et al.*, *Agents Actions*, 1992, **36**, 243-247, (*biochem, NO-synthetase*)
Tsilikounas, E. *et al.*, *Biochemistry*, 1996, **35**, 2437-2444, (*nmr, biochem, mechanism*)