



>>Entry Name: Dansylglycine

Synonym(s): *N*-[[5-(Dimethylamino)-1-naphthalenyl]sulfonyl]glycine, 9CI

CAS Registry Number: 1091-85-6

Extra CAS Registry Numbers(s): 134288-28-1

Molecular Formula: C₁₄H₁₆N₂O₄S

Molecular Weight: 308.357

Accurate Mass: 308.083078

Percentage Composition: C 54.53%; H 5.23%; N 9.08%; O 20.75%; S 10.40%

Source/Synthesis: Derived from glycine *N*-terminal peptides and proteins following *N*-terminal labelling with 5-(Dimethylamino)-1-naphthalenesulfonyl chloride [FNS92-C](#) and hydrol.

Physical Description: Pale green plates (H₂O)

Melting Point: Mp 158°

>>Derivative: Et ester

CAS Registry Number: 4982-86-9

Molecular Formula: C₁₆H₂₀N₂O₄S

Molecular Weight: 336.411

Accurate Mass: 336.114378

Percentage Composition: C 57.13%; H 5.99%; N 8.33%; O 19.02%; S 9.53%

Physical Description: Cryst. (Et₂O/petrol)

Melting Point: Mp 72-74°

>>Derivative: Hydrazide

CAS Registry Number: 60941-56-2

Molecular Formula: C₁₄H₁₈N₄O₃S

Molecular Weight: 322.387

Accurate Mass: 322.109961

Percentage Composition: C 52.16%; H 5.63%; N 17.38%; O 14.89%; S 9.95%

Use/Importance: Fluorescent reagent for oligonucleotide sequencing

Melting Point: Mp 98-100°

>>Derivative: Succinimido ester

CAS Registry Number: 56767-01-2

Molecular Formula: C₁₈H₁₉N₃O₆S

Molecular Weight: 405.431

Accurate Mass: 405.099457

Percentage Composition: C 53.33%; H 4.72%; N 10.36%; O 23.68%; S 7.91%

Use/Importance: Intermed. for dansyl-labelled peptides

Melting Point: Mp 181-182°

References:

Hartley, B.S. *et al.*, *Biochim. Biophys. Acta*, 1956, **21**, 58-70, (*synth, uv*)

Seiler, N., *Methods Biochem. Anal.*, 1970, **18**, 259-337, (*rev, props, detn*)

Seiler, N. *et al.*, *Anal. Biochem.*, 1971, **44**, 451-457, (*ms*)

Chimiak, A. *et al.*, *Org. Prep. Proced. Int.*, 1973, **5**, 117-124, (*synth, pmr, ir*)

Aleksandrova, L.A. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1977, 647-653; *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 1977, 583-589, (*succinimido ester, synth, use*)

Wangyi, L. *et al.*, *Sci. Sin. (Engl. edn.)*, 1980, **23**, 1296-1308, (*hydrazide, synth, use, rev, Et ester*)

Antolini, L. *et al.*, *J.C.S. Dalton*, 1986, 1367-1373, (*cryst struct*)