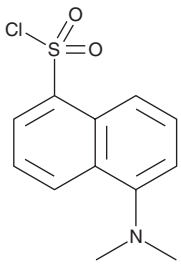
PRODUCT INFORMATION

Dansyl Chloride

Item No. 27458

CAS Registry No.:	605-65-2
Formal Name:	5-(dimethylamino)-1-naphthalenesulfonyl chloride
Synonyms:	DNSCl, NSC 83616
MF:	$C_{12}H_{12}ClNO_2S$
FW:	269.7
Purity:	≥95%
UV/Vis.:	λ_{max}: 210, 265, 369 nm
Ex./Em. Max:	340/535 nm, respectively, in acetone
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Dansyl chloride is supplied as a solid. A stock solution may be made by dissolving the dansyl chloride in the solvent of choice, which should be purged with an inert gas. Dansyl chloride is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of dansyl chloride in these solvents is approximately 1.6, 10, and 3 mg/ml, respectively.

Dansyl chloride is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, dansyl chloride should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Dansyl chloride has a solubility of approximately 0.02 mg/ml in a 1:40 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Dansyl chloride is a reactive probe for the derivatization of primary amines, including those on amino acids, peptides, and polyamines, for detection by HPLC.[1-3] It has also been used for the derivatization of compounds containing phenol groups, such as steroids, for detection by MS/MS.[4] Dansyl chloride is a fluorescent probe for proteins and enzymes.[5] It displays excitation/emission maxima of 340/535 nm, respectively, in acetone.

References

1. Walker, J.M. The dansyl method for identifying N-terminal amino acids. *Methods in molecular biology: Basic protein and peptide protocols.* Walker, J.M., editor, *Humana Press, Inc.* (1994).
2. Takeuchi, T. HPLC of amino acids as dansyl and dabsyl derivatives. *J. Chromatogr. Lib.* **70**, 229-241 (2005).
3. Hunter, K.J. A dansyl chloride-HPLC method for the determination of polyamines. *Methods in molecular biology: Polyamine protocols.* Morgan, D.M.L., editor, *Humana Press, Inc.* (1998).
4. Santa, T. Derivatization reagents in liquid chromatography/electrospray ionization tandem mass spectrometry. *Biomed. Chromatogr.* **25(1-2),** 1-10 (2011).
5. Chen, R.F. and Scott, C.H. Atlas of fluorescence spectra and lifetimes of dyes attached to protein. *Anal. Lett.* **18(4)**, 393-421 (1985).

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