

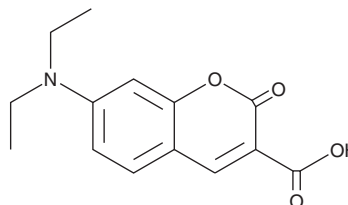
PRODUCT INFORMATION



7-(Diethylamino)coumarin-3-carboxylic Acid

Item No. 35396

CAS Registry No.: 50995-74-9
Formal Name: 7-(diethylamino)-2-oxo-2H-1-benzopyran-3-carboxylic acid
Synonyms: Coumarin D 1421, 7-DCCA, 7-Diethylamino-2-oxo-2H-chromen-3-carboxylic Acid
MF: C₁₄H₁₅NO₄
FW: 261.3
Purity: ≥95%
UV/Vis.: λ_{max}: 424 nm
Ex./Em. Max: 407/472 nm
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

7-(Diethylamino)coumarin-3-carboxylic acid is supplied as a solid. A stock solution may be made by dissolving the 7-(diethylamino)coumarin-3-carboxylic acid in the solvent of choice, which should be purged with an inert gas. 7-(Diethylamino)coumarin-3-carboxylic acid is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 7-(diethylamino)coumarin-3-carboxylic acid in these solvents is approximately 2 mg/ml.

Description

7-(Diethylamino)coumarin-3-carboxylic acid is a fluorescent probe.^{1,2} It has been used as a FRET acceptor conjugated to neomycin B or tobramycin (Item No. 14596) for use in the analysis of bacterial RNA binding.¹ It has also been used as a reactive probe for the derivatization of sulfonamides for laser-induced fluorescent (LIF) detection.² 7-(Diethylamino)coumarin-3-carboxylic acid displays excitation/emission maxima of 407/472 nm, respectively.

References

1. Xie, Y., Dix, A.V., and Tor, Y. FRET enabled real time detection of RNA-small molecule binding. *J. Am. Chem. Soc.* **131(48)**, 17605-17614 (2009).
2. Wu, C., Sun, Y., Wang, Y., et al. 7-(Diethylamino)coumarin-3-carboxylic acid as derivatization reagent for 405 nm laser-induced fluorescence detection: A case study for the analysis of sulfonamides by capillary electrophoresis. *Talanta* **201**, 16-22 (2019).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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