

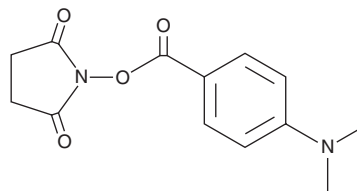
PRODUCT INFORMATION



DMABA NHS ester

Item No. 11216

CAS Registry No.: 58068-85-2
Formal Name: 4-(dimethylamino)-benzoic acid, 2,5-dioxo-1-pyrrolidinyl ester
Synonyms: 4-(dimethylamino) Benzoic Acid, DMABA N-hydroxysuccinimide ester, N-Succinimidyl 4-(dimethylamino)benzoate
MF: C₁₃H₁₄N₂O₄
FW: 262.3
Purity: ≥98%
UV/Vis.: λ_{max}: 235, 323 nm
Supplied as: A crystalline 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

DMABA NHS ester is supplied as a crystalline solid. A stock solution may be made by dissolving the DMABA NHS ester in the solvent of choice, which should be purged with an inert gas. DMABA NHS ester is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of DMABA NHS ester in these solvents is approximately 20 mg/ml.

DMABA NHS ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DMABA NHS ester should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DMABA NHS ester has a solubility of approximately 0.03 mg/ml in a 1:30 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Phosphatidylethanolamine (PE) lipids are important components of cell membranes and biochemical pathways of fatty acid synthesis that contain abundant polyunsaturated fatty acyl groups. Oxidation of these phospholipids may be linked to various human diseases. DMABA NHS ester is a reagent that reacts with the primary amine group of PE lipids.^{1,2} This facilitates the use of electrospray tandem mass spectrometry for the detection of diacyl, ether, and plasmalogen PE lipids that cannot be readily observed otherwise.^{1,2} DMABA NHS ester has been used in combination with DMABA NHS ester-d₄, -d₆, and -d₁₀ (Item Nos. 11217, 11218, and 11219) to study relative changes in PE lipid abundance before and after radical oxidation.²

References

1. Zemski Berry, K.A., Turner, W.W., VanNieuwenhze, M.S., *et al.* Stable isotope labeled 4-(dimethylamino) benzoic acid derivatives of glycerophosphoethanolamine lipids. *Anal. Chem.* **81(16)**, 6633-6640 (2009).
2. Zemski Berry, K.A., Turner, W.W., VanNieuwenhze, M.S., *et al.* Characterization of oxidized phosphatidylethanolamine derived from RAW 264.7 cells using 4-(dimethylamino)benzoic acid derivatives. *Eur. J. Mass Spectrom* **16(3)**, 463-470 (2010).

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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