

Product Data Sheet

Product Name: DMABA-d₁₀ NHS ester

Cat. No.: GC47247

Chemical Properties

Cas. No. 1175002-05-7

SMILES O=C(CC1)N(OC(C2=C([2H])C([2H])=C(N(C([2H])([2H])[2H])C([2H])([2H])[2H])C([2H])=C2[2H])=O)C1=O

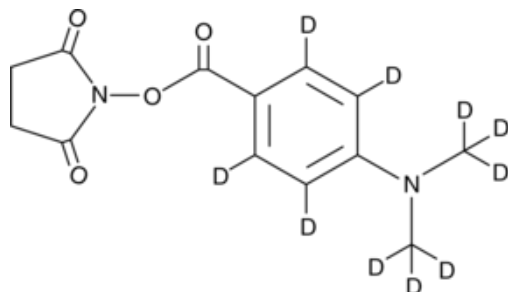
Formula C₁₃H₄D₁₀N₂O₄ M.Wt 272.3

Solubility DMF: 20 mg/ml, DMSO: 20 mg/ml, DMSO:PBS (pH 7.2) (1:30): 0.03 mg/ml
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

DMABA-d₁₀ NHS ester is intended for use in combination with DMABA NHS ester as a derivatizing reagent for PE lipids in order to facilitate MS characterization and to quantify relative changes in their abundance. DMABA-d₁₀ and DMABA NHS esters have been shown to facilitate the characterization of PE lipids *via* electrospray mass spectrometry by providing a common precursor ion scan for diacyl, ether, and plasmalogen PE lipids.¹ Furthermore, application of split-and-pool methodology allows for relative changes in endogenous PE lipid levels between control and treated samples to be measured.² Phosphatidylethanolamine (PE) lipids are important components of cell membranes and

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

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}

1.Zemski Berry, K.A., Turner, W.W., VanNieuwenhze, M.S., et al.Stable isotope labeled 4-(dimethylamino)benzoic acid derivatives of glycerophosphoethanolamine lipidsAnalytical Chemistry81(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 derivativesEur.J.Mass Spectrom16(3)463-470(2010)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA