

Product Data Sheet

Product Name: PAF C-18-d₄

Cat. No.: GC47856

Chemical Properties

Cas. No. N/A

SMILES O=P(OCC[N+](C)(C)C([O-])OC[C@H](OC(C)=O)COCCCCCCCCC([2H])([2H])C([2H])([2H])CCCCCCCC

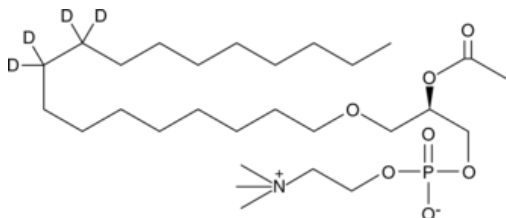
Formula C₂₈H₅₄D₄NO₇P M.Wt 555.7

Solubility DMF: 10 mg/ml, DMSO: 10 mg/ml, Ethanol: 10 mg/ml, PBS (pH 7.2): 20 mg/ml, Water: 20 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

PAF C-18-d₄ contains four deuterium atoms at the 9, 9', 10, and 10' positions. It is intended for use as an internal standard for the quantification of PAF C-18 by GC- or LC-mass spectrometry. PAF C-18 is a naturally occurring phospholipid produced upon stimulation through two distinct pathways known as the "remodeling" and 'de novo' pathways.¹ It is less potent than PAF C-16 in the induction of platelet aggregation, but equipotent in activation of guinea pig macrophages.² PAF C-18 induces the release of PGE₂ and TXB₂ from albumin-elicited guinea pig macrophages, and enhances the spreading of plated macrophages.³ Pathological processes involving PAF include necrotizing enterocolitis,⁴ inflammation, asthma, and allergy.⁵

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

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1.Prescott, S.M., Zimmerman, G.A., and McIntyre, T.M.Platelet-activating factorThe Journal of Biological Chemistry26517381-17384(1990) 2.Stewart, A.G., and Grigoriadis, G.Structure-activity relationships for platelet-activating factor (PAF) and analogs reveal differences between PAF receptors on platelets and macrophagesJournal of Lipid Mediators4299-308(1991) 3.Hartung, H.P.Acetyl glyceryl ether phosphorylcholine (platelet-activating factor) mediates heightened metabolic activity in macrophages. Studies on PGE, TXB2 and O2 production, spreading, and the influence of calmodulin-inhibitor W-7FEBS Letters160209-212(1983) 4.Wang, H., Tan, X.D., Qu, X.W., et al.Platelet-activating factor (PAF) up-regulates plasma and tissue PAF-acetylhydrolase activity in the rat: Effect of cycloheximidePediatric Research42597-603(1997) 5.Sturk, A., Wouter Ten Cate, J., Hosford, D., et al.The synthesis, catabolism, and pathophysiological role of platelet-activating factorAdvances in Lipid Research23219-276(1989)

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