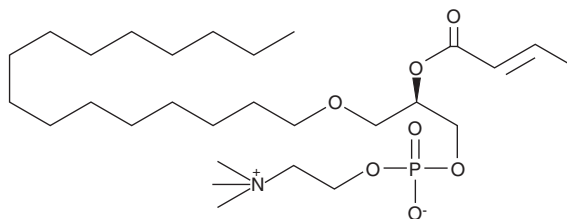


PRODUCT INFORMATION

Butenoyl PAF

Item No. 60929

CAS Registry No.: 474944-25-7
Formal Name: 1-O-hexadecyl-2-O-(2E-butenoyl)-sn-glycerol-3-phosphocholine
MF: C₂₈H₅₆NO₇P
FW: 549.7
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Butenoyl PAF is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of butenoyl PAF in these solvents is approximately 0.5 and 10 mg/ml, respectively.

Butenoyl PAF is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of butenoyl PAF should be diluted with the aqueous buffer of choice. The solubility of butenoyl PAF in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Butenoyl and butanoyl PAF are both products of the oxidative decomposition of 2-arachidonoyl phospholipids.¹ Oxygenation of C-5 of the 5,6 double bond followed by cleavage of the hydroperoxide results in a PAF-like compound with a 4-carbon residue esterified in the sn-2 position; similar oxidized lipid products also act as ligands for oxidized lipid receptors and peroxisome proliferator-activated receptor.² Although butenoyl PAF is 10-fold less potent than PAF as a PAF receptor agonist, it is present in amounts 100-fold greater than enzymatically generated PAF. Therefore, oxidation of LDL phospholipids generates physiologically relevant bioactive PAF-like molecules.

References

1. Marathe, G.K., Davies, S.S., Harrison, K.A., *et al.* Inflammatory platelet-activating factor-like phospholipids in oxidized low density lipoproteins are fragmented alkyl phosphatidylcholines. *J. Biol. Chem.* **274**(40), 28395-28404 (1999).
2. Davies, S.S., Pontsler, A.V., Marathe, G.K., *et al.* Oxidized alkyl phospholipids are specific, high affinity peroxisome proliferator-activated receptor γ ligands and agonists. *J. Biol. Chem.* **276**(19), 16015-16023 (2001).

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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