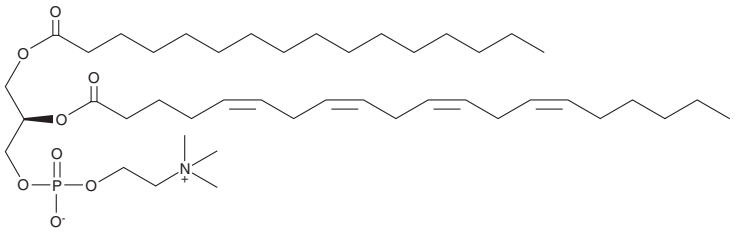
PRODUCT INFORMATION

1-Palmitoyl-2-Arachidonoyl-*sn*-glycero-3-PC

Item No. 25658

CAS Registry No.: 35418-58-7
Formal Name: (7R,13Z,16Z,19Z,22Z)-4-hydroxy-N,N,N-trimethyl-9-oxo-7-[[(1-oxohexadecyl)oxy]methyl]-3,5,8-trioxa-4-phosphaoctacosa-13,16,19,22-tetraen-1-aminium 4-oxide, inner salt
Synonyms: 1-Palmitoyl-2-Arachidonoyl-*sn*-glycero-3-Phosphocholine, PAPC, PC(16:0/20:4)
MF: $C_{44}H_{80}NO_8P$
FW: 782.1
Purity: ≥95%
Supplied as: A solution in chloroform
Storage: -80°C
Stability: ≥2 years



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

Description

PAPC is a phospholipid containing palmitic acid (16:0) (Item No. 10006627) and arachidonic acid (20:4) (Item No. 90010) at the *sn*-1 and *sn*-2 positions, respectively, that is found in biological membranes.[1] PAPC is oxidized *in vivo*, and its oxidation products are involved in chronic inflammation and vascular disease.[1-3] PAPC has been used to study signaling of oxidized phospholipids. Levels of PAPC are decreased in isolated human multiple myeloma cells.[4]

References

1. Bretscher, P., Egger, J., Shamshiev, A., *et al.* Phospholipid oxidation generates potent anti-inflammatory lipid mediators that mimic structurally related pro-resolving eicosanoids by activating Nrf2. *EMBO Mol. Med.* **7(5)**, 593-607 (2015).
2. Miller, Y.I. and Shyy, J.Y.-J. Context-dependent role of oxidized lipids and lipoproteins in inflammation. *Trends Endocrinol. Metab.* **28(2)**, 143-152 (2017).
3. Gugiu, B.G., Mouiflesseaux, K., Duong, V., *et al.* Protein targets of oxidized phospholipids in endothelial cells. *J. Lipid Res.* **49(3)**, 510-520 (2008).
4. Hossen, M.A., Nagata, Y., Waki, M., *et al.* Decreased level of phosphatidylcholine (16:0/20:4) in multiple myeloma cells compared to plasma cells: A single-cell MALDI-IMS approach. *Anal. Bioanal. Chem.* **407(18)**, 5273-5280 (2015).

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