

PRODUCT INFORMATION



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

Item No. 10009864

CAS Registry No.: 35418-59-8

Formal Name: 1-ocatadeconyl-2R-(5Z,8Z,11Z,14Z-eicosatetraenoyl)-*sn*-glyceryl-3-phosphorylcholine

Synonyms: 18:0/20:4-PC, PC(18:0/20:4), SAPC, 1-Stearoyl-2-Arachidonoyl-*sn*-glycero-3-Phosphatidylcholine, 1-Stearoyl-2-Arachidonoyl-*sn*-glycero-3-Phosphocholine

MF: C₄₆H₈₄NO₈P

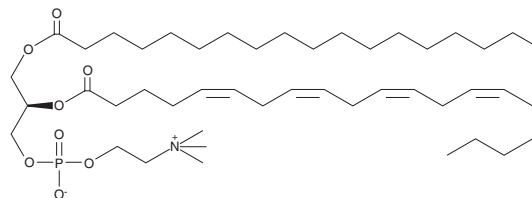
FW: 810.1

Purity: ≥98%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥1 year



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

Laboratory Procedures

1-Stearoyl-2-arachidonoyl-*sn*-glycero-3-PC (SAPC) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of SAPC should be diluted with the aqueous buffer of choice. SAPC has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method.

Description

SAPC is a phospholipid containing stearic acid (Item No. 10011298) and arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) at the *sn*-1 and *sn*-2 positions, respectively. It is a component of LDL and has been found in human stenotic aortic valves and atherosclerotic plaques.^{1,2} Levels of SAPC are increased in the subepithelial invasive region compared to the superficial region of tumor tissue samples from patients with superficial-type pharyngeal squamous cell carcinoma.³ SAPC unilamellar vesicles have been used as substrates to quantify the activity of secretory phospholipase A₂ (sPLA₂) in the presence or absence of inhibitors.⁴ SAPC has also been used in the formation of lipid bilayers to study the effects of lipid composition on bilayer phase transitions.⁵

References

1. Milne, G.L., Seal, J.R., Havrilla, C.M., *et al.* Identification and analysis of products formed from phospholipids in the free radical oxidation of human low density lipoproteins. *J. Lipid Res.* **46**(2), 307-319 (2005).
2. Lehti, S., Käkelä, R., Hörkö, S., *et al.* Modified lipoprotein-derived lipid particles accumulate in human stenotic aortic valves. *PLoS One* **8**(6):e65810 (2013).
3. Ishikawa, S., Tateya, I., Hayasaka, T., *et al.* The distribution of phosphatidylcholine species in superficial-type pharyngeal carcinoma. *Biomed. Res. Int.* **5387913** (2017).
4. Schebb, N.H., Falck, D., Faber, H., *et al.* Fast method for monitoring phospholipase A₂ activity by liquid chromatography-electrospray ionization mass spectrometry. *J. Chromatogr. A* **1216**(27), 5249-5255 (2009).
5. Tada, K., Goto, M., Tamai, N., *et al.* Pressure effect on the bilayer phase transition of asymmetric lipids with an unsaturated acyl chain. *Ann. N.Y. Acad. Sci.* **1189**(1), 77-85 (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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