

PRODUCT INFORMATION



1-Stearoyl-2-Arachidonoyl-d₁₁-sn-glycero-3-PC

Item No. 27928

Formal Name: (R)-2-(((5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoyl-16,16,17,17,18,18,19,19,20,20,20-d₁₁)oxy)-3-(stearoyloxy)propyl (2-(trimethylammonio)ethyl) phosphate

Synonyms: 18:0/20:4-d₁₁-PC, PC(18:0/20:4-d₁₁), SAPC-d₁₁, 1-Stearoyl-2-Arachidonoyl-d₁₁-sn-glycero-3-Phosphatidylcholine, 1-Stearoyl-2-Arachidonoyl-d₁₁-sn-glycero-3-Phosphocholine

MF: C₄₆H₇₃D₁₁NO₈P

FW: 821.2

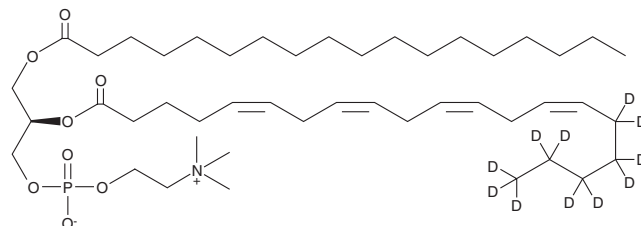
Chemical Purity: ≥95% (1-Stearoyl-2-Arachidonoyl-sn-glycero-3-PC) Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₁₁); ≤1% d₀

Supplied as: A solution in ethanol

Storage: -80°C

Stability: ≥2 years



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

Laboratory Procedures

1-Stearoyl-2-arachidonoyl-d₁₁-sn-glycero-3-PC (SAPC-d₁₁) is intended for use as an internal standard for the quantification of 1-stearoyl-2-arachidonoyl-sn-glycero-3-PC (Item No. 10009864) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

SAPC-d₁₁ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of SAPC-d₁₁ should be diluted with the aqueous buffer of choice. SAPC-d₁₁ 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. *J. Lipid Res.* **46**(2), 307-319 (2005).
2. Lehti, S., Käkälä, R., Hörkko, S., et al. *PLoS One* **8**(6):e65810 (2013).
3. Ishikawa, S., Tateya, I., Hayasaka, T., et al. *Biomed. Res. Int.* **5387913** (2017).
4. Schebb, N.H., Falck, D., Faber, H., et al. *J. Chromatogr. A* **1216**(27), 5249-5255 (2009).
5. Tada, K., Goto, M., Tamai, N., et al. *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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