

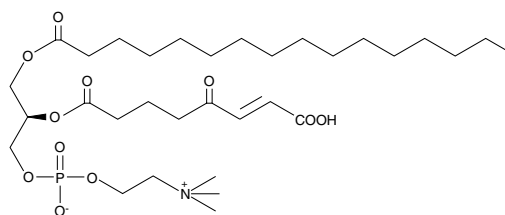
Product Information



KODiA-PC

Item No. 62945

CAS Registry No.: 439904-33-3
Formal Name: 1-(palmitoyl)-2-(5-keto-6-octene-diyl)phosphatidylcholine
MF: C₃₂H₅₈NO₁₁P
FW: 663.8
Purity: ≥98%
Stability: ≥1 year at -80°C
Supplied as: A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that KODiA-PC be stored as supplied at -80°C. It will be stable for at least one year.

KODiA-PC 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 KODiA-PC in these solvents is approximately 0.5 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of KODiA-PC is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of KODiA-PC in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Oxidized low-density lipoprotein (oxLDL) particles contain low molecular weight species which are cytotoxic and pro-atherogenic.¹ Many of these substances were recently isolated and purified from oxLDL, and identified as phosphatidylcholine species containing a fragmented, oxidized short-chain fatty acid remnant at the *sn*-2 position.² 1-(Palmitoyl)-2-(5-keto-6-octene-diyl) phosphatidylcholine (KODiA-PC) is one of the most potent CD36 ligands among the oxLDL species.³ KODiA-PC confers CD36 scavenger receptor binding affinity to LDL at a frequency of only two to three KODiA-PC molecules/LDL particle, and may be one of the more important structural determinants of oxLDL.

References

- Podrez, E.A., Febbraio, M., Sheibani, N., *et al.* Macrophage scavenger receptor CD36 is the major receptor for LDL modified by monocyte-generated reactive nitrogen species. *J. Clin. Invest.* **105**(8), 1095-1108 (2000).
- Podrez, E.A., Batyreva, E., Shen, Z., *et al.* A novel family of atherogenic oxidized phospholipids promotes macrophage foam cell formation *via* the scavenger receptor CD36 and is enriched in atherosclerotic lesions. *J. Biol. Chem.* **277**(41), 38517-38523 (2002).
- Podrez, E.A., Batyreva, B., Shen, Z., *et al.* Identification of a novel family of oxidized phospholipids that serve as ligands for the macrophage scavenger receptor CD36. *J. Biol. Chem.* **277**(41), 38503-38516 (2002).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/62945

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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