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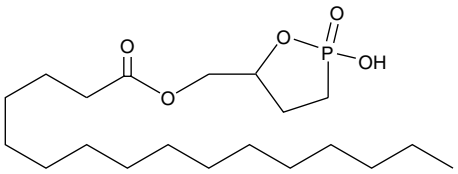
Product Information

Palmitoyl 3-carbacyclic Phosphatidic Acid

Item No. 10010293

CAS Registry No.: 476310-22-2
Formal Name: (2-hydroxy-2-oxido-1,2-oxaphospholan-5-yl)methyl ester hexadecanoic acid
Synonym: 3-ccPA 16:0
MF: $C_{20}H_{39}O_5P$
FW: 390.5
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that palmitoyl 3-carbacyclic phosphatidic acid (3-ccPA 16:0) be stored as supplied at -20°C. It should be stable for at least two years.

3-ccPA 16:0 is supplied as a crystalline solid. 3-ccPA 16:0 is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of 3-ccPA 16:0 be prepared by directly dissolving the crystalline solid compound in aqueous buffers. The solubility of 3-ccPA 16:0 in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Cyclic phosphatidic acids (cPAs) are naturally occurring analogs of lysophosphatidic acid (LPA) in which the *sn*-2 hydroxy group forms a 5-membered ring with the *sn*-3 phosphate.[1,2] Carba-derivatives of cPA (ccPA) are modified at the *sn*-2 (2-ccPA) or *sn*-3 (3-ccPA) linkage, preventing the opening of cPA to produce LPA.[3] Palmitoyl 3-ccPA is a cyclic LPA analog that contains the 16:0 fatty acid, palmitate, at the *sn*-1 position of the glycerol backbone.[3] At 25 µM, it inhibits the transcellular migration of MM1 cells across mesothelial cell monolayers in response to fetal bovine serum (81.9%) or LPA (98.9%) without affecting proliferation.[3] 3-ccPA 16:0, at 0.1-25 µM, significantly inhibits autotaxin, an enzyme that is important in cancer cell survival, growth, migration, invasion, and metastasis.[4,5]

References

1. Kobayashi, T., Tanaka-Ishii, R., Taguchi, R., *et al.* Existence of a bioactive lipid, cyclic phosphatidic acid, bound to human serum albumin. *Life Sci.* **65(21)**, 2185-2191 (1999).
2. Mukai, M., Imamura, F., Ayaki, M., *et al.* Inhibition of tumor invasion and metastasis by a novel lysophosphatidic acid (cyclic LPA). *Int. J. Cancer* **81**, 918-922 (1999).
3. Uchiyama, A., Mukai, M., Fujiwara, Y., *et al.* Inhibition of transcellular tumor cell migration and metastasis by novel carba-derivatives of cyclic phosphatidic acid. *Biochim. Biophys. Acta* **1771**, 103-112 (2007).
4. Baker, D.L., Fujiwara, Y., Pigg, K.R., *et al.* Carba analogs of cyclic phosphatidic acid are selective inhibitors of autotaxin and cancer cell invasion and metastasis. *J. Biol. Chem.* **281(32)**, 22786-22793 (2006).
5. Prestwich, G.D., Gajewiak, J., Zhang, H., *et al.* Phosphatase-resistant analogues of lysophosphatidic acid: Agonists promote healing, antagonists and autotaxin inhibitors treat cancer. *Biochim. Biophys. Acta* **1781**, 588-594 (2008).

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