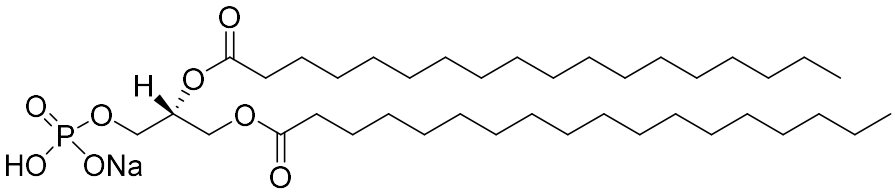
DSPA (18:0/18:0 PA)

Catalog number: L-4118



Molecular Formula: $C_{39}H_{76}NaO_8P$

MW: 726.98

CAS#: 108321-18-2

Alternate Name: Distearoyl Phosphatidic Acid, 1,2-Distearoyl-*sn*-glycero-3-phosphate, sodium salt

Solubility: Chloroform (<1.5 mg/mL) with gentle heating (50-60 °C), chloroform:methanol:water (1:1:0.1) >5 mg/mL

Storage and Handling: Store dry at -20°C. Stock solutions should be stored frozen (-20 °C or below).

Background: Phosphatidic acid (PA) is a minor component of cell membranes, constituting 1 – 2% of all phospholipids in humans. PA is made by phospholipase D from phosphatidylcholine and is used as a substrate for synthesis of other phospholipids. PA is implied to play a role in both vesicle fusion and fission. Biotinylated lipids have been used in microplate and bead-based assays and affinity experiments.

References: 1) Wang, X., Devaiah, S.P., Zhang, W., Welti, R. "Signaling functions of Phosphatidic Acid" (2006), Prog. Lipid Res. 45: 250-278.
2) Foster, D.A., et al. (2014) "Phospholipase D and the Maintenance of Phosphatidic Acid Levels for Regulation of mTOR" J. Biol. Chem. 289: 22583-22588.
3) Raben, D.M., Barber, C.N. (2017) "Phosphatidic acid and neurotransmission" Adv. Biol. Regul. 63:15-21.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

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