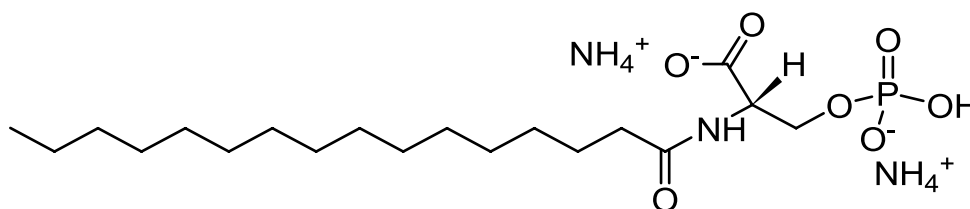


TECHNICAL DATA SHEET

N-Palmitoyl-Serine-Phosphoric Acid

Catalog Number	800715	Physical state	Powder
Purity	> 99%	Transition temp.	No data
CAS	799268-44-3	CMC	No data
Synonyms	N-16:0-Serine-PO ₄	PKA	No data
Molec. Formula	C ₁₉ H ₄₄ N ₃ O ₇ P	TLC mobile phase	C:M:W & C:M:A *, 65:35:8, v/v
MW	457.550	Exact Mass	457.292
Percent composition	C 49.88% H 9.69% N 9.18% O 24.48% P 6.77%		
Stability	Store in <-20°C freezer for up to one year		
Solubility	See note in Product Use section below		
Web link	800715		

*chloroform:methanol:water and chloroform:methanol:acetone



Description:

Lysophosphatidic acid (LPA) receptor modulators include N-palmitoyl serine phosphoric acid and N-palmitoyl-tyrosine phosphoric acid. N-palmitoyl serine phosphoric acid is a competitive inhibitor of the LPA receptor in *Xenopus* oocytes (Neidlinger et al, 2006; Liliom et al, 1996). However, in mammalian cells, N-palmitoyl-serine phosphoric acid may act as an agonist for the LPA receptor (Hooks et al, 1998; An et al, 1998). LPA is a lipid mediator that acts similar to growth factors through G-protein coupled plasma membrane receptors (Neidlinger et al, 2006; Liliom et al, 1996; Hooks et al, 1998; An et al, 1998; Jan et al, 2003). LPA may play a role in platelet aggregation, smooth muscle contraction, vasoactive changes, cytoskeletal reorganization and cell proliferation (Neidlinger et al, 2006). N-palmitoyl serine phosphoric acid may also play a role in signal transduction in mammalian cells by increasing intracellular calcium (An et al, 1998; Jan et al, 2003).

Product use:

A range of 0.1-20 µM of N-palmitoyl serine phosphoric acid can be used for cell studies. Make a stock solution of 5 mM in DMSO and store at -20°C. Diluted N-palmitoyl serine phosphoric acid can be directly added to the study medium (Jan et al, 2003). An et al. dissolved N-palmitoyl-serine and N-palmitoyl-tyrosine phosphoric acid in 0.1 mL PBS containing 0.1 mg/mL human serum albumin before adding to cells (An et al, 1998). In *X.laevis* studies, these LPA inhibitors were dissolved in DMSO at 1 mM and filtered through a 0.45 µM membrane filter before injection (Liliom et al, 1996).

References:

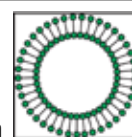
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Related products: [N-palmitoyl-tyrosine phosphoric acid](#)
Receptor agonist/antagonist

MSDS: Available on Avanti's website for product number 800715

Avanti Polar Lipids, Inc., 700 Industrial Park Drive, Alabaster, AL 35007-9105, U.S.A.

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