PRODUCT INFORMATION



Thioetheramide-PC

Item No. 62750

CAS Registry No.:	116457-99-9	
Formal Name:	1,2-dideoxy-1-(S-hexadecyl)thio-2-	\frown
	(N-hexadecanoyl)amino-sn-glyceryl-3- phosphorylcholine	
Synonym:	1-Palmitylthio-2-palmitoylamido-1,2-	
	dideoxy-sn-glycero-3-phosphorylcholine	
MF:	$C_{40}H_{83}N_2O_5PS$	Ĩ
FW:	735.1	
Purity:	≥95%	
Supplied as:	A solution in ethanol	
Storage:	-20°C	<u> </u>
Stability:	≥2 years	

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

Laboratory Procedures

Thioetheramide-PC is supplied as a solution in ethanol. Thioetheramide-PC is sparingly soluble in organic solvents such as DMSO and dimethyl formamide. Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Prior to performing biological experiments, the ethanolic solution should be reconstituted in buffer containing 4.25 mM Triton X-100.¹ Sonicate until a clear solution is obtained. Thioetheramide-PC remains monomeric in aqueous solutions.^{1,2} Store aqueous solutions of thioetheramide-PC on ice and use within 12 hours. We recommend making a fresh preparation each day.

Description

Thioetheramide-PC is an analog of phosphatidylcholine containing a thioether at the sn-1 position and an amide at the sn-2 position. It is a structurally modified phospholipid that functions as a competitive, reversible inhibitor of secretory phospholipase A_2 (sPLA₂).^{1,2} The IC₅₀ value for thioetheramide-PC is 2 μ M at a substrate concentration of 0.5 mM.¹ In addition to binding to the catalytic site of sPLA₂, thioetheramide-PC also binds to the activator site of this enzyme. The binding of thioetheramide-PC to the activator site is tighter than its binding to the catalytic site. The result of this dual interaction is that at low concentrations thioetheramide-PC may activate phospholipase activity rather than inhibiting it.¹

References

- 1. Yu, L., Deems, R.A., Hajdu, J., et al. The interaction of phospholipase A₂ with phospholipid analogues and inhibitors. J. Biol. Chem. 265, 2657-2664 (1990).
- 2. Plesniak, L.A., Boegeman, S.C., Segelke, B.W., et al. Interaction of phospholipase A₂ with thioether amide containing phospholipid analogues. Biochemistry 32, 5009-5016 (1993).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

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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1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM