

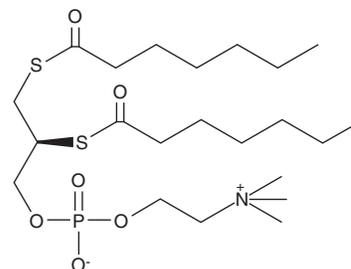
# PRODUCT INFORMATION



## 1,2-bis(heptanoylthio) Glycerophosphocholine

Item No. 62235

**CAS Registry No.:** 89019-63-6  
**Formal Name:** (S)-4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxoheptyl)thio]-3,5-dioxo-9-thia-4-phosphahexadecan-1-aminium  
**Synonyms:** Diheptanoyl Thio-PC, 1,2-bis(Heptanoylthio)-1,2-dideoxy-sn-glycero-3-phosphorylcholine  
**MF:** C<sub>22</sub>H<sub>44</sub>NO<sub>6</sub>PS<sub>2</sub>  
**FW:** 513.7  
**Purity:** ≥95%  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

1,2-bis(heptanoylthio) Glycerophosphocholine (Diheptanoyl Thio-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 diheptanoyl thio-PC in these solvents is approximately 50 mg/ml.

Diheptanoyl thio-PC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of diheptanoyl thio-PC should be diluted with the aqueous buffer of choice. The solubility of diheptanoyl thio-PC in PBS (pH 7.2) is approximately 62 µg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Diheptanoyl thio-PC is a substrate for all phospholipase A<sub>2</sub>s (PLA<sub>2</sub>s) with the exception of cPLA<sub>2</sub> and PAF-acetyl hydrolase (PAF-AH).<sup>1</sup> Interaction of this compound with a PLA<sub>2</sub> results in cleavage of the sn-2 fatty acid generating a free thiol on the lysophospholipid. This free thiol can be detected using chromogenic substrates such as DTNB (Ellman's reagent) and DTP.<sup>2,3</sup>

### References

1. Roberts, M.F. Phospholipases: Structural and functional motifs for working at an interface. *FASEB J.* **10(10)**, 1159-1172 (1996).
2. Hendrickson, H.S., Hendrickson, E.K., and Dybvig, R.H. Chiral synthesis of a dithiolester analog of phosphatidylcholine as a substrate for the assay of phospholipase A<sub>2</sub>. *J. Lipid Res.* **24(11)**, 1532-1537 (1983).
3. Reynolds, L.J., Hughes, L.L., and Dennis, E.A. Analysis of human synovial fluid phospholipase A<sub>2</sub> on short chain phosphatidylcholine-mixed micelles: Development of a spectrophotometric assay suitable for a microtiterplate reader. *Anal. Biochem.* **204(1)**, 190-197 (1992).

#### WARNING

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

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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