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Product Information

1,2-Diacyl-*sn*-glycero-3-phospho-L-serine

Product Number **P 7769**

Storage Temperature -0 °C

Product Description

The molecular weight is approximately 790 assuming one of the fatty acid residues is stearic acid and one is oleic acid. The average content of stearic acid is 40% and oleic acid is 29%.

Phosphatidylserine is used in enzymatic assays of purified protein kinase C. During activation of this enzyme as part of signal transduction processes, phosphatidylserine located on the inside of cellular plasma membranes binds to cysteine residue domains on protein kinase C. Phosphatidylserine, dissolved in chloroform, dried under a stream of nitrogen, and then sonicated into a buffer to form micelles, is one method used to increase the Ca²⁺ activation of protein kinase C.^{1,2}

Phosphatidylserine becomes translocated to the external portion of the cell membrane at the onset of apoptosis.^{3,4}

This product has been used as a standard in chromatography and for artificial membrane studies in liposome research.⁵

Procedures that have been used for isolation of phosphatidylserine have been described.⁶

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

Soluble in chloroform:methanol, (95:5, v/v)(50 mg/ml).

References

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3. Koopman, G., et al., Annexin V for Flow Cytometric Detection of Phosphatidylserine Expression on B Cells Undergoing Apoptosis. *Blood*, **84(5)**, 1415-1420 (1994).
4. Kuypers, F. A., et al., Detection of Altered Membrane Phospholipid Asymmetry in Subpopulations of Human Red Blood Cells Using Fluorescently Labeled Annexin V. *Blood*, **87(3)**, 1179-1187 (1996).
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6. Sanders, H., Preparative Isolation of Phosphatidyl Serine from Brain. *Biochim. Biophys. Acta*, **144(2)**, 485-487 (1967).

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