



3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

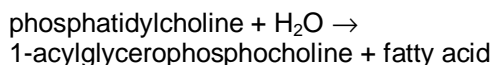
Phospholipase A₂ from *Crotalus atrox*

Product Number **P 3770**
Storage Temperature 2-8 °C

Product Description

CAS Number: 9001-84-7
Enzyme Commission (EC) Number: 3.1.1.4
Molecular Weight: 14.5 kDa (amino acid sequence)¹
Structure: Phospholipase A₂ is a single polypeptide chain of approximately 123 amino acids containing seven disulfide bridges.

Phospholipase A₂ reacts stereospecifically with most sn-3-phosphoglycerides. The fatty acid ester bonds are hydrolyzed at the C-2 position. This reaction requires calcium for catalysis. The general reaction catalyzed is:



Phospholipase A₂ is inhibited *in vitro* by both calpactin I and calpactin II. The calpactins sequester the phospholipid substrate. There is no direct interaction between the calpactins and phospholipase A₂.²

Quinacrine has also been described as an inhibitor of phospholipase A₂ (IC₅₀ = 17 μM)³

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (1 mg/ml), yielding a clear, colorless solution.

References

1. De Haas, G.H., et al., Studies on phospholipase A and its zymogen from porcine pancreas. II. The assignment of the position of the six disulfide bridges. *Biochim. Biophys. Acta*, **221(1)**, 54-61 (1970).
2. Davidson, F.F., et al., Inhibition of phospholipase A₂ by "lipocortins" and calpactins. An effect of binding to substrate phospholipids. *J. Biol. Chem.*, **262(4)**, 1698-1705 (1987).
3. Magolda, R. L., et al., Prostaglandins, Leukotrienes and Lipoxins, Plenum Press (1985), pp 669-672.

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