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Product Information

Phospholipase A₂ from *Crotalus atrox*

Product Number **P 3770**

Storage Temperature 2-8 °C

Product Description

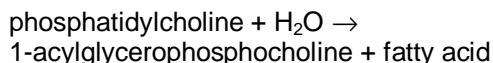
CAS Number: 9001-84-7

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 calpastin I and calpastin II. The calpastins sequester the phospholipid substrate. There is no direct interaction between the calpastins 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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