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Product Information

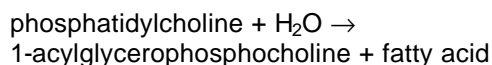
Phospholipase A₂ from bee venom (*Apis mellifera*)

Product Number **P9279**
Storage Temperature -20 °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
pI: 10.5 ± 1.0²
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 A₂.³

Quinacrine has also been described as an inhibitor of phospholipase A₂ (IC₅₀ = 17 μM)⁴

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (2 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. De Haas, G.H., et al., Purification and properties of phospholipase A from porcine pancreas. *Biochim. Biophys. Acta*, **159(1)**, 103-117 (1968).
3. 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).
4. Magolda, R. L., et al., Prostaglandins, Leukotrienes and Lipoxins, Plenum Press (1985), pp 669-672.

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