Phospholipase A<sub>2</sub> from porcine pancreas

**Product Number**  P 6534  
**Storage Temperature**  2-8 °C

**Product Description**
CAS Number: 9001-84-7  
Enzyme Commission (EC) Number: 3.1.1.4  
Molecular Weight: 13.9 kDa (amino acid sequence)<sup>1</sup>  
pl: 7.4<sup>2</sup>  
Structure: Phospholipase A<sub>2</sub> is a single polypeptide chain of approximately 123 amino acids containing seven disulfide bridges.

Phospholipase A<sub>2</sub> reacts stereo specifically 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:

\[
\text{phosphatidylcholine + H}_2\text{O} \rightarrow 1\text{-acylglycerophosphocholine + fatty acid}
\]

Phospholipase A<sub>2</sub> is inhibited \textit{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 A<sub>2</sub>.<sup>3</sup>

Quinacrine has also been described as an inhibitor of phospholipase A<sub>2</sub> (IC<sub>50</sub> = 17 µM)<sup>4</sup>

**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.

**Storage/Stability**
Pancreatic phospholipase A<sub>2</sub> is very stable. The enzyme is not denatured by 8 M urea, 5 M guanidine HCl, 10% TCA, or hot (85 °C) 2% SDS.

**References**