



## Product Information

### Phospholipase C from *Bacillus cereus*

Product Number **P 6135**  
Storage Temperature -0 °C

#### Product Description

Enzyme Commission (EC) Number: 3.1.4.3  
CAS Number: 9001-86-9  
Molecular Weight: 23 kDa<sup>1</sup>  
Synonyms: Lecithinase C, Phosphatidylcholine choline phosphohydrolase

Phospholipase C is a monomeric protein containing two tightly bound Zn<sup>2+</sup> atoms. The secondary structure of the enzyme consists of 30-36% α-helix and 24-30% β structure.<sup>1,2</sup>

Phospholipase C catalyzes the following reaction:

Phosphatidylcholine + H<sub>2</sub>O →  
1,2-diacylglycerol + phosphorylcholine

Phospholipase C from *Bacillus cereus* will also hydrolyze the following pure phospholipids in deoxycholate-mixed micelles: phosphatidylethanolamine and phosphatidylserine. The pH optimum for this enzyme is 6.6-8.0. Free Zn<sup>2+</sup> in solution is not required for optimal activity, but removal of the bound Zn<sup>2+</sup> results in the inactivation of the enzyme.<sup>1,2</sup>

Phospholipase C is inhibited by EDTA and o-phenanthroline.<sup>3</sup>

#### Precautions and Disclaimer

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

#### Preparation Instructions

This enzyme is soluble in 10 mM dimethylglutaric acid, pH 7.5 (0.5 mg/ml), yielding a clear and colorless solution.

#### References

1. Little, C., Phospholipase C from *Bacillus cereus*. Meth. Enzymol., **71, Part C**, 725-730 (1981).
2. Dennis, E. A., in The Enzymes, 3rd ed., Vol. XVI, Boyer, P. D., ed., Academic Press (New York, NY: 1983), pp. 320-322.
3. Handbook of Enzyme Inhibitors, 2nd ed., Part A, Zollner, H., VCH (New York, NY: 1993), pp. 387.

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