

cPLA₂ (1-216): sc-4049 WB

BACKGROUND

Phospholipase A₂s (PLA₂s) constitute a family of esterases that hydrolyze the sn-2-acyl ester bond in glycerophospholipid molecules. These enzymes are generally calcium-dependent and have been found both intra- and extracellularly. By hydrolyzing the sn-2 bond in glycerophospholipids, PLA₂s release fatty acids. One such fatty acid, arachidonic acid, generates the substrates for the initiation of the arachidonic acid cascade that produces various eicosanoids (e.g., prostaglandins, leukotrienes and thromboxanes), many of which are potent mediators of inflammation. PLA₂s include both the relatively low molecular weight (approximately 14 kDa) type I and type II enzymes and the form known as cytoplasmic PLA₂ (cPLA₂). This form of PLA₂ is approximately 100-110 kDa in molecular weight, is present in the cytosol of various cells and tissues including platelets, macrophages and monoblasts and preferentially hydrolyzes the sn-2 position of phospholipid molecules, releasing free arachidonate.

REFERENCES

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SOURCE

cPLA₂ (1-216) is expressed in *E. coli* as a 35 kDa polyhistidine tagged fusion protein corresponding to amino acids 1-216 mapping at the amino terminus of cytoplasmic phospholipase A₂ (cPLA₂) of human origin.

PRODUCT

cPLA₂ (1-216) is purified from bacterial lysates (>98%) by Ni⁺⁺ affinity chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

cPLA₂ (1-216) is suitable as a Western blotting control for sc-438 and sc-454.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

For research use only, not for use in diagnostic procedures.