Anti-Phospholipase A2 (cPLA2) produced in rabbit, affinity isolated antibody

Catalog Number SAB4200210

Product Description
Anti-Phospholipase A2 (cPLA2) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 242-258 of human cPLA2 (GeneID 5321), conjugated to KLH. The corresponding sequence is identical in mouse and rat cPLA2. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Phospholipase A2 (cPLA2), specifically recognizes human cPLA2. The antibody can be used in several immunochemical techniques including immunoblotting (~100 kDa). Detection of the cPLA2 band by immunoblotting is specifically inhibited by the cPLA2 immunizing peptide.

Cytosolic phospholipase A2, group IVa, (cPLA2, also known as cPLA2α, PLA2G4A) is a member of the PLA2 superfamily that catalyzes the cleavage of fatty acids from the sn-2 position of phospholipids.1,2 PLA2 isoenzymes vary in their cellular localizations, Ca2+ sensitivities and substrate specificities. They catalyze the synthesis of precursors of proinflammatory mediators, such as prostaglandins and leukotrienes, through the release of arachidonic acid (AA) from membrane phospholipids. PLA2s play crucial roles in several cellular processes, including intracellular membrane trafficking, differentiation, proliferation and apoptosis. They are thought to play a role in oxidative and inflammatory responses in cerebral ischemia, Alzheimer’s disease (AD) and neuronal injury.34 cPLA2 mRNA is widely expressed in tissues and in various cell types including platelets, macrophages and endothelial cells. Upon cell stimulation, cPLA2 is activated by increased intracellular Ca2+ levels and phosphorylation, resulting in its translocation from the cytosol to the endoplasmic reticulum and the nuclear membrane.5 cPLA2 is phosphorylated and activated by either ERK1/2, p38 MAPK or JNK at three sites, Ser505, Ser515 and Ser727, depending on the cell type and agonist.1,6,7

Reagent
Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1.5 mg/mL

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Store at −20 °C. For continuous use, the product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation. Discard working dilutions if not used within 12 hours.

Product Profile
Immunoblotting: a working concentration of 2-4 µg/mL is recommended using extracts of HEK-293T cells over expressing human cPLA2.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References