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Anti-PLA2G4C Antibody

Catalog # AP53782

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q9UP65
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60939

Additional Information

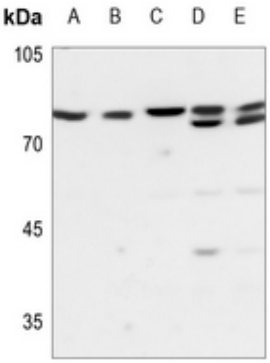
Gene ID	8605
Other Names	Cytosolic phospholipase A2 gamma; cPLA2-gamma; Phospholipase A2 group IVC
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PLA2G4C. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

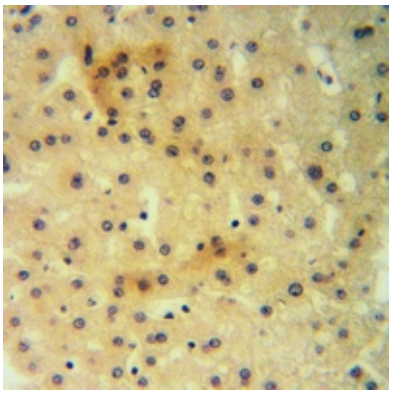
Name	PLA2G4C
Function	Calcium-independent phospholipase, lysophospholipase and O-acyltransferase involved in phospholipid remodeling with implications in endoplasmic reticulum membrane homeostasis and lipid droplet biogenesis (PubMed:10085124, PubMed:10358058, PubMed:19501189, PubMed:28336330, PubMed:9705332). Preferentially hydrolyzes the ester bond of the fatty acyl group attached at the sn-2 position of phospholipids with choline and ethanolamine head groups, producing lysophospholipids that are used in deacylation-reacylation cycles (PubMed:10085124, PubMed:10358058, PubMed:19501189, PubMed:28336330, PubMed:9705332). Transfers the sn-1 fatty acyl from one lysophospholipid molecule to the sn-2 position of another lysophospholipid to form diacyl, alkylacyl and alkenylacyl glycerophospholipids. Cleaves ester bonds but not alkyl or alkenyl ether bonds at sn-1 position of lysophospholipids (PubMed:15944408, PubMed:19501189). Catalyzes sn-2 fatty acyl transfer from phospholipids to the sn-2 position of 1-O-alkyl or 1-O-alkenyl

	lysophospholipids with lower efficiency (PubMed:15944408, PubMed:19501189). In response to dietary fatty acids, may play a role in the formation of nascent lipid droplets from the endoplasmic reticulum likely by regulating the phospholipid composition of these organelles (PubMed:28336330).
Cellular Location	Cell membrane; Lipid-anchor. Endoplasmic reticulum membrane; Lipid-anchor. Mitochondrion membrane; Lipid- anchor. Lipid droplet. Note=Translocates from endoplasmic reticulum to lipid droplets in response to oleate
Tissue Location	Highly expressed in heart and skeletal muscle.

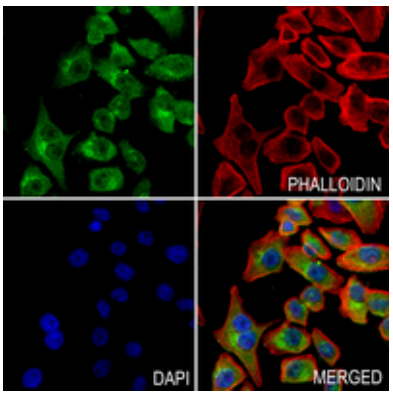
Images



Western blot analysis of PLA2G4C expression in Jurkat (A), H446 (B), mouse lung (C), rat lung (D), rat spleen (E) whole cell lysates. (Predicted band size: 60 kD; Observed band size: 80 kD)



Immunohistochemical analysis of PLA2G4C staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of PLA2G4C staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.