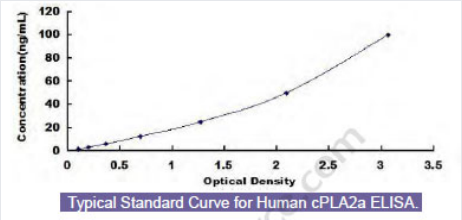
Cytosolic Phospholipase A2-Alpha (cPLA2a) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytosolic Phospholipase A2-alpha (cPLA2a), ELISA Kit
Full Product Name	Human Cytosolic Phospholipase A2-alpha (cPLA2a) ELISA Kit
Product Gene Name	cPLA2a elisa kit
Product Synonym Names	c-PLA2; PLA2G4; PLA2G4A; Phospholipase A2,Group IV(Cytosolic,Calcium-Dependent); Phosphatidylcholine 2-acylhydrolase; Lysophospholipase
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	Serum, plasma, tissue homogenates and other biological fluids
Detection Range	1.56-100ng/mL
Sensitivity	<0.67ng/mL.
Specificity	This assay has high sensitivity and excellent specificity for detection of cPLA2a. No significant cross-reactivity or interference between cPLA2a and analogues was observed.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level cPLA2a were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level cPLA2a were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	85,239 Da
OMIM	M72393 mRNA
3D Structure	ModBase 3D Structure for P47712
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for cPLA2a elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for the in vitro quantitative measurement of cPLA2a in human serum, plasma, tissue homogenates and other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to cPLA2a. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to cPLA2a. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain cPLA2a, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of cPLA2a in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of cPLA2a elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for cPLA2a purchase	MBS456846 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytosolic Phospholipase A2-alpha (cPLA2a) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing cPLA2a. The ELISA analytical biochemical technique of the MBS456846 kit is based on cPLA2a antibody-cPLA2a antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect cPLA2a antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, cPLA2a. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of cPLA2a elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for cPLA2a. It may not necessarily be applicable to this product.

NCBI GI #	909618051
NCBI GeneID	5321
NCBI Accession #	NP_001298122.1
UniProt Primary Accession #	P47712
UniProt Secondary Accession #	Q29R80; B1AKG4
UniProt Related Accession #	P47712
GenBank Nucleotide #	NM_001311193.1
NCBI Official Full Name	cytosolic phospholipase A2 isoform 2
NCBI Official Synonym Full Names	phospholipase A2 group IVA
NCBI Official Symbol	PLA2G4A
NCBI Official Synonym Symbols	cPLA2; PLA2G4; cPLA2-alpha
UniProt Protein Name	Cytosolic phospholipase A2
UniProt Synonym Protein Names	Phospholipase A2 group IVAIncluding the following 2 domains:Phospholipase A2 (EC:3.1.1.4)Alternative name(s):Phosphatidylcholine 2-acylhydrolase
UniProt Gene Name	PLA2G4A
UniProt Synonym Gene Names	CPLA2; PLA2G4; cPLA2
NCBI Protein Information	cytosolic phospholipase A2
NCBI Summary for cPLA2a	This gene encodes a member of the cytosolic phospholipase A2 group IV family. The enzyme catalyzes the hydrolysis of membrane phospholipids to release arachidonic acid which is subsequently metabolized into eicosanoids. Eicosanoids, including prostaglandins and leukotrienes, are lipid-based cellular hormones that regulate hemodynamics, inflammatory responses, and other intracellular pathways. The hydrolysis reaction also produces lysophospholipids that are converted into platelet-activating factor. The enzyme is activated by increased intracellular Ca(2+) levels and phosphorylation, resulting in its translocation from the cytosol and nucleus to perinuclear membrane vesicles. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2015]
UniProt Comments for cPLA2a	Selectively hydrolyzes arachidonyl phospholipids in the sn-2 position releasing arachidonic acid. Together with its lysophospholipid activity, it is implicated in the initiation of the inflammatory response.
Research Articles on cPLA2a	**1.** These results indicate epigenetic regulation of cPLA2 and the potential of such regulation for treatment of chronic inflammation.
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