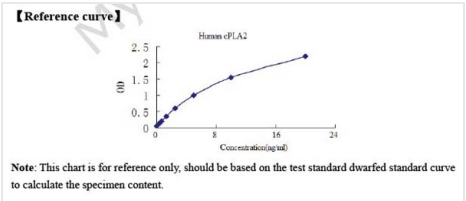
Cytosolic Phospholipase A2 (cPLA2) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytosolic Phospholipase A2 (cPLA2), ELISA Kit
Full Product Name	Human Cytosolic Phospholipase A2 (cPLA2) ELISA Kit
Product Gene Name	cPLA2 elisa kit
Species Reactivity	Human
Assay Type	Sandwich
Samples	Other special sample please contact our technical support. The kit is for research use only. Please read the instructions carefully before using and check the kit components
Detection Range	200 ng/ml-0.312 ng/ml
Sensitivity	0.06 ng/ml.
Preparation and Storage	Store all reagents at 2-8 degree C.
Inter-assay Precision	<= 12%
Intra-assay Precision	<= 8%
Molecular Weight	85,239 Da
OMIM	600522
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for cPLA2 elisa kit	**Principle of the Assay:** This experiment use double-sandwich elisa technique and the ELISA Kit provided is typical. The pre-coated antibody is human cPLA2 monoclonal antibody and the detecting antibody is polyclonal antibody with biotin labeled. Samples and biotin labeling antibody are added into ELISA plate wells and washed out with PBS or TBS. Then Avidin-peroxidase conjugates are added to ELISA wells in order; Use TMB substrate for coloring after reactant thoroughly washed out by PBS or TBS. TMB turns into blue in peroxidase catalytic and finally turns into yellow under the action of acid. The color depth and the testing factors in samples are positively correlated.
Other Notes	Small volumes of cPLA2 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 cPLA2 purchase	MBS260463 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytosolic Phospholipase A2 (cPLA2) 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 cPLA2. The ELISA analytical biochemical technique of the MBS260463 kit is based on cPLA2 antibody-cPLA2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect cPLA2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, cPLA2. 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 cPLA2 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for cPLA2. It may not necessarily be applicable to this product.

NCBI GI #	23943920
NCBI GeneID	5321
NCBI Accession #	NP_077734.1
UniProt Secondary Accession #	Q29R80; B1AKG4
UniProt Related Accession #	P47712
GenBank Nucleotide #	NM_024420.2
NCBI Official Full Name	cytosolic phospholipase A2
NCBI Official Synonym Full Names	phospholipase A2, group IVA (cytosolic, calcium-dependent)
NCBI Official Symbol	PLA2G4A
NCBI Official Synonym Symbols	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
Protein Family	Cytosolic phospholipase
UniProt Gene Name	PLA2G4A
UniProt Synonym Gene Names	CPLA2; PLA2G4; cPLA2
UniProt Entry Name	PA24A_HUMAN
NCBI Protein Information	cytosolic phospholipase A2; cPLA2; lysophospholipase; phospholipase A2 group IVA; phosphatidylcholine 2-acylhydrolase; calcium-dependent phospholipid-binding protein
NCBI Summary for cPLA2	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. [provided by RefSeq, Jul 2008]

UniProt Comments for cPLA2	cPLA2: a calcium-dependent phospholipase A2 that catalyzes the release of arachidonic acid from membrane phospholipids. Selectively hydrolyzes arachidonyl phospholipids in the sn-2 position releasing arachidonic acid. Arachidonic acid is a precursor for the eicosanoids that are involved in hemodynamic regulation, inflammatory responses, and other cellular processes. Promotes cerebellar long-term depression and motor learning. Translocates to the Golgi and endoplasmic reticulum in a calcium-dependent fashion. Translocation and activation of at the ER facilitates the process of ER stress. Regulates the biogenesis of lipid droplets, a process dependent on JNK and ceramide kinase. Stimulated by agonists such as ATP, EGF, thrombin and bradykinin as well as by cytosolic Ca2+. The N-terminal C2 domain, by its association with lipid membranes, mediates the regulation of CPLA2 by presenting the active site to its substrate in response to elevations of cytosolic Ca2+. Inhibited when in trimolecular complex with ANXA2 and S100A10. Phosphorylation of S727 relieves this inhibitory interaction, thus activating PLA2G4A. Protein type: EC 3.1.1.5; Lipid Metabolism - arachidonic acid; Lipid Metabolism - glycerophospholipid; Lipid Metabolism - alpha-linolenic acid; Lipid Metabolism - ether lipid; EC 3.1.1.4; Lipid Metabolism - linoleic acid; Phospholipase Chromosomal Location of Human Ortholog: 1q25 Cellular Component: Golgi apparatus; endoplasmic reticulum membrane; cytoplasmic membrane-bound vesicle; cytoplasm; mitochondrial inner membrane; cytosol Molecular Function: phospholipase A2 activity; calcium-dependent phospholipid binding; calcium-dependent phospholipase A2 activity; calcium ion binding; lysophospholipase activity Biological Process: icosanoid biosynthetic process; platelet activation; platelet activating factor biosynthetic process; phospholipid catabolic process; phospholipid metabolic process; icosanoid metabolic process; glycerophospholipid biosynthetic process; arachidonic acid metabolic process; phosphatidic acid biosynthetic process; arachidonic acid secretion; blood coagulation; regulation of cell proliferation
Research Articles on cPLA2	**1.** Phospholipase A2 expression in coronary thrombus is associated with recurrence of cardiac events.
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