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iPLA2γ Polyclonal Antibody
Catalog # AP70566

Specification

iPLA2γ Polyclonal Antibody - Product Information

Application	**WB**
Primary Accession	Q9NP80
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**

iPLA2γ Polyclonal Antibody - Additional Information

Gene ID 50640

Other Names
PNPLA8; IPLA22; IPLA2G; BM-043; Calcium-independent phospholipase A2-gamma; Intracellular membrane-associated calcium-independent phospholipase A2 gamma; iPLA2-gamma; PNPLA-gamma; Patatin-like phospholipase domain-containing protein 8; iPLA

Dilution
WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

iPLA2γ Polyclonal Antibody - Protein Information

Name PNPLA8 (HGNC:28900)

Synonyms IPLA22, IPLA2G

Function
Calcium-independent and membrane-bound phospholipase, that catalyzes the esterolytic cleavage of fatty acids from glycerophospholipids to yield free fatty acids and lysophospholipids, hence regulating membrane physical properties and the release of lipid second messengers and growth factors (PubMed:10833412, PubMed:10744668, PubMed:15695510, PubMed:15908428, PubMed:17213206, PubMed:18171998, PubMed:28442572). Hydrolyzes phosphatidylethanolamine, phosphatidylcholine and probably phosphatidylinositol with a possible preference for the former (PubMed:<a

href="http://www.uniprot.org/citations/15695510" target="_blank">15695510). Has also a broad substrate specificity in terms of fatty acid moieties, hydrolyzing saturated and mono-unsaturated fatty acids at nearly equal rates from either the sn-1 or sn-2 position in diacyl phosphatidylcholine (PubMed:10833412, PubMed:10744668, PubMed:15695510, PubMed:15908428). However, has a weak activity toward polyunsaturated fatty acids at the sn-2 position, and thereby favors the production of 2-arachidonoyl lysophosphatidylcholine, a key branch point metabolite in eicosanoid signaling (PubMed:15908428). On the other hand, can produce arachidonic acid from the sn-1 position of diacyl phospholipid and from the sn-2 position of arachidonate-containing plasmalogen substrates (PubMed:15908428). Therefore, plays an important role in the mobilization of arachidonic acid in response to cellular stimuli and the generation of lipid second messengers (PubMed:15695510, PubMed:15908428). Can also hydrolyze lysophosphatidylcholine (PubMed:15695510). In the mitochondrial compartment, catalyzes the hydrolysis and release of oxidized aliphatic chains from cardiolipin and integrates mitochondrial bioenergetics and signaling. It is essential for maintaining efficient bioenergetic mitochondrial function through tailoring mitochondrial membrane lipid metabolism and composition (PubMed:28442572).

Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q5XTS1}; Single-pass membrane protein Mitochondrion membrane; Single-pass membrane protein. Peroxisome membrane; Single-pass membrane protein

Tissue Location
Expressed in parenchymal tissues including heart, skeletal muscle, placenta, brain, liver and pancreas. Also expressed in bronchial epithelial cells and kidney. Highest expression is observed in skeletal muscle and heart.

iPLA2γ Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

iPLA2γ Polyclonal Antibody - Images

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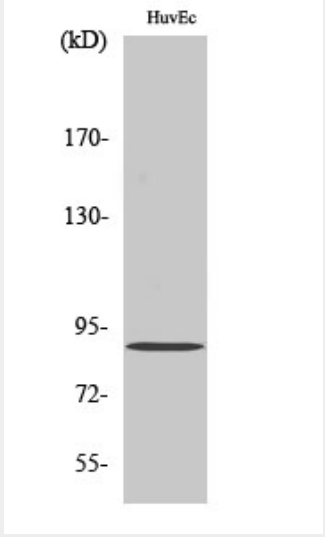

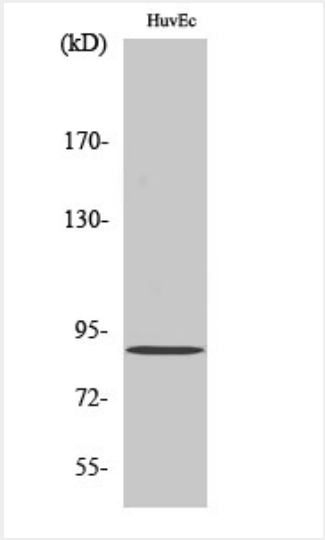

iPLA2γ Polyclonal Antibody - Background

Calcium-independent phospholipase A2, which catalyzes the hydrolysis of the sn-2 position of glycerophospholipids, PtdSer and to a lower extent PtdCho. Cleaves membrane phospholipids.