

PNPLA8 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4706a

Specification

PNPLA8 Antibody (N-term) - Product Information

Application	WB, FC,E
Primary Accession	Q9NP80
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	88477
Antigen Region	212-240

PNPLA8 Antibody (N-term) - Additional Information

Gene ID 50640

Other Names

Calcium-independent phospholipase A2-gamma, Intracellular membrane-associated calcium-independent phospholipase A2 gamma, iPLA2-gamma, PNPLA-gamma, Patatin-like phospholipase domain-containing protein 8, iPLA2-2, PNPLA8, IPLA22, IPLA2G

Target/Specificity

This PNPLA8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 212-240 amino acids from the N-terminal region of human PNPLA8.

Dilution

WB~~1:1000
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PNPLA8 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PNPLA8 Antibody (N-term) - 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:[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

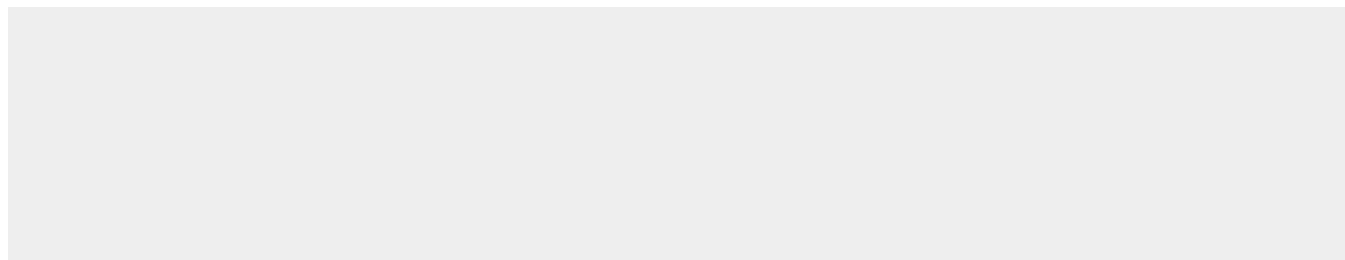
Expressed in parenchymal tissues including heart, skeletal muscle, placenta, brain, liver and pancreas. Also expressed in bronchial epithelial cells and kidney. Highest expression is observed in skeletal muscle and heart.

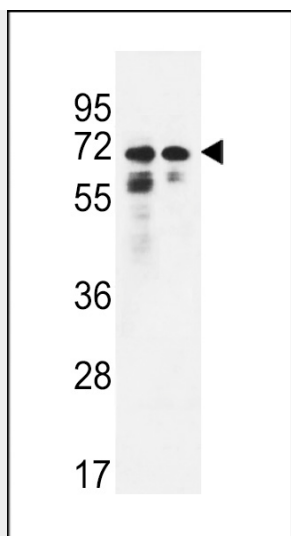
PNPLA8 Antibody (N-term) - Protocols

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

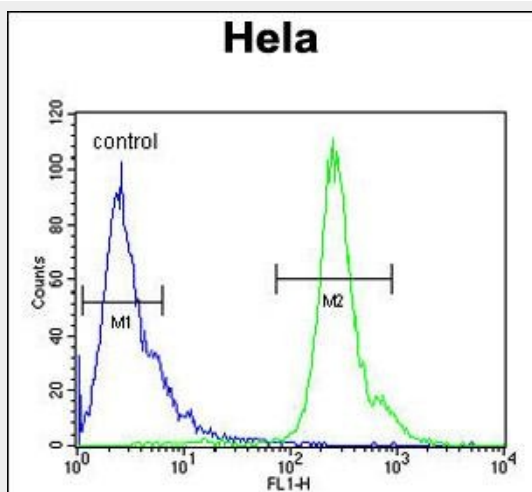
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PNPLA8 Antibody (N-term) - Images





PNPLA8 Antibody (N-term) (Cat. #AP4706a) western blot analysis in HeLa, K562 cell line lysates (35 µg/lane). This demonstrates the PNPLA8 antibody detected the PNPLA8 protein (arrow).



PNPLA8 Antibody (N-term) (Cat. #AP4706a) flow cytometric analysis of HeLa cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

PNPLA8 Antibody (N-term) - Background

PNPLA8 catalyzes cleavage of fatty acids from phospholipids, thereby regulating membrane physical properties and the release of lipid second messengers and growth factors. Phospholipase A2 activity also modulates cellular growth programs, inflammation, and ion channel function.

PNPLA8 Antibody (N-term) - References

- Harper, M.T., et al. J. Thromb. Haemost. 6(10):1819-1821(2008)
- Wilson, P.A., et al. J. Lipid Res. 47(9):1940-1949(2006)
- Murakami, M., et al. J. Biol. Chem. 280(14):14028-14041(2005)