

**PNPLA8 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP4706a****Specification**

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**PNPLA8 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q9NP80](#)**PNPLA8 Antibody (N-term) Blocking Peptide - 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

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**PNPLA8 Antibody (N-term) Blocking Peptide - 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](http://www.uniprot.org/citations/10833412), PubMed: [10744668](http://www.uniprot.org/citations/10744668), PubMed: [15695510](http://www.uniprot.org/citations/15695510), PubMed: [15908428](http://www.uniprot.org/citations/15908428), PubMed: [17213206](http://www.uniprot.org/citations/17213206), PubMed: [18171998](http://www.uniprot.org/citations/18171998), PubMed: [28442572](http://www.uniprot.org/citations/28442572)). Hydrolyzes phosphatidylethanolamine, phosphatidylcholine and probably phosphatidylinositol with a possible preference for the former (PubMed: [15695510](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/10833412" target="\_blank">10833412</a>, PubMed:<a href="http://www.uniprot.org/citations/10744668" target="\_blank">10744668</a>, PubMed:<a href="http://www.uniprot.org/citations/15695510" target="\_blank">15695510</a>, PubMed:<a href="http://www.uniprot.org/citations/15908428" target="\_blank">15908428</a>). 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:<a href="http://www.uniprot.org/citations/15908428" target="\_blank">15908428</a>). 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:<a href="http://www.uniprot.org/citations/15908428" target="\_blank">15908428</a>). Therefore, plays an important role in the mobilization of arachidonic acid in response to cellular stimuli and the generation of lipid second messengers (PubMed:<a href="http://www.uniprot.org/citations/15695510" target="\_blank">15695510</a>, PubMed:<a href="http://www.uniprot.org/citations/15908428" target="\_blank">15908428</a>). Can also hydrolyze lysophosphatidylcholine (PubMed:<a href="http://www.uniprot.org/citations/15695510" target="\_blank">15695510</a>). 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:<a href="http://www.uniprot.org/citations/28442572" target="\_blank">28442572</a>).

#### **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) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **PNPLA8 Antibody (N-term) Blocking Peptide - Images**

### **PNPLA8 Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - 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)