

PNPLA2 Blocking Peptide (N-term)

Synthetic peptide

Catalog # BP20306a

Specification

PNPLA2 Blocking Peptide (N-term) - Product Information

Primary Accession

[Q96AD5](#)**PNPLA2 Blocking Peptide (N-term) - Additional Information**

Gene ID 57104

Other Names

Patatin-like phospholipase domain-containing protein 2, Adipose triglyceride lipase, Calcium-independent phospholipase A2, Desnutrin, IPLA2-zeta, Pigment epithelium-derived factor, TTS22, Transport-secretion protein 2, TTS2, PNPLA2, ATGL

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.

PNPLA2 Blocking Peptide (N-term) - Protein InformationName PNPLA2 ([HGNC:30802](#))**Function**

Catalyzes the initial step in triglyceride hydrolysis in adipocyte and non-adipocyte lipid droplets (PubMed: [15550674](http://www.uniprot.org/citations/15550674)), PubMed: [15364929](http://www.uniprot.org/citations/15364929), PubMed: [16150821](http://www.uniprot.org/citations/16150821), PubMed: [17603008](http://www.uniprot.org/citations/17603008), PubMed: [16239926](http://www.uniprot.org/citations/16239926), PubMed: [34903883](http://www.uniprot.org/citations/34903883)). Exhibits a strong preference for the hydrolysis of long-chain fatty acid esters at the sn-2 position of the glycerol backbone and acts coordinately with LIPE/HLS and DGAT2 within the lipolytic cascade (By similarity). Also possesses acylglycerol transacylase and phospholipase A2 activities (PubMed: [15364929](http://www.uniprot.org/citations/15364929), PubMed: [17032652](http://www.uniprot.org/citations/17032652), PubMed: [17603008](http://www.uniprot.org/citations/17603008)). Transfers fatty acid from triglyceride to retinol, hydrolyzes retinylesters, and generates 1,3-diacylglycerol from triglycerides (PubMed: [17603008](http://www.uniprot.org/citations/17603008)). Regulates adiposome size and may be involved in the

degradation of adiposomes (PubMed:16239926). May play an important role in energy homeostasis (By similarity). May play a role in the response of the organism to starvation, enhancing hydrolysis of triglycerides and providing free fatty acids to other tissues to be oxidized in situations of energy depletion (By similarity). Catalyzes the formation of an ester bond between hydroxy fatty acids and fatty acids derived from triglycerides or diglycerides to generate fatty acid esters of hydroxy fatty acids (FAHFAs) in adipocytes (PubMed:35676490).

Cellular Location

Lipid droplet. Cell membrane; Multi-pass membrane protein. Cytoplasm {ECO:0000250|UniProtKB:Q8BJ56}

Tissue Location

Highest expression in adipose tissue. Also detected in heart, skeletal muscle, and portions of the gastrointestinal tract Detected in normal retina and retinoblastoma cells. Detected in retinal pigment epithelium and, at lower intensity, in the inner segments of photoreceptors and in the ganglion cell layer of the neural retina (at protein level).

PNPLA2 Blocking Peptide (N-term) - Protocols

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

- [Blocking Peptides](#)

PNPLA2 Blocking Peptide (N-term) - Images

PNPLA2 Blocking Peptide (N-term) - Background

Catalyzes the initial step in triglyceride hydrolysis in adipocyte and non-adipocyte lipid droplets. Also has acylglycerol transacylase activity. May act coordinately with LIPE/HLS within the lipolytic cascade. Regulates adiposome size and may be involved in the degradation of adiposomes. May play an important role in energy homeostasis. May play a role in the response of the organism to starvation, enhancing hydrolysis of triglycerides and providing free fatty acids to other tissues to be oxidized in situations of energy depletion.