

PNPLA2 / ATGL Antibody
Rabbit Polyclonal Antibody
Catalog # ALS15577**Specification**

PNPLA2 / ATGL Antibody - Product Information

Application	IHC, WB
Primary Accession	Q96AD5
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55kDa KDa

PNPLA2 / ATGL Antibody - Additional Information**Gene ID** 57104**Other Names**

Patatin-like phospholipase domain-containing protein 2, 3.1.1.3, Adipose triglyceride lipase, Calcium-independent phospholipase A2, Desnutrin, IPLA2-zeta, Pigment epithelium-derived factor, TTS2.2, Transport-secretion protein 2, TTS2, PNPLA2, ATGL

Target/Specificity

The antibody recognizes 54 kD ATGL in samples from human and mouse origins. Reactivity to other species has not been tested.

Reconstitution & Storage

Short term +4°C (no longer than one week); Long term -20°C; Aliquot to avoid freeze/thaw cycles.

Precautions

PNPLA2 / ATGL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PNPLA2 / ATGL Antibody - Protein Information**Name** PNPLA2 ([HGNC:30802](#))**Function**

Catalyzes the initial step in triglyceride hydrolysis in adipocyte and non-adipocyte lipid droplets (PubMed: 15550674, PubMed: 15364929, PubMed: 16150821, PubMed: 17603008, PubMed: 16239926, PubMed: 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, PubMed:17032652, PubMed:17603008). Transfers fatty acid from triglyceride to retinol, hydrolyzes retinylesters, and generates 1,3-diacylglycerol from triglycerides (PubMed: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

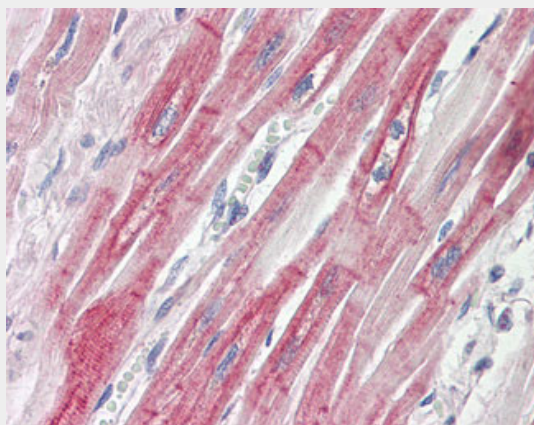
Highest expression in adipose tissue. Also detected in heart, skeletal muscle, and portions of the gastrointestinal tract. Detected in normal retina and retinoblastoma cells. Detected in retinal pigment epithelium and, at lower intensity, in the inner segments of photoreceptors and in the ganglion cell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

PNPLA2 / ATGL Antibody - Protocols

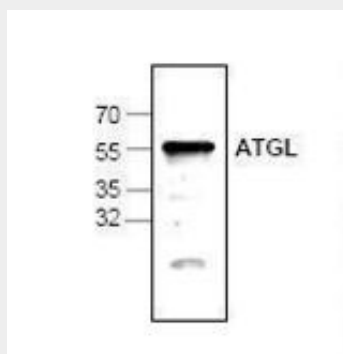
Provided below are standard protocols that you may find useful for product applications.

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

PNPLA2 / ATGL Antibody - Images



Anti-PNPLA2 / ATGL antibody IHC staining of human heart.



Western blot of PNPLA2 / ATGL antibody.

PNPLA2 / ATGL Antibody - 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.

PNPLA2 / ATGL Antibody - References

Zimmermann R., et al. Science 306:1383-1386(2004).
Strahl T., et al. Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
Wan D., et al. Proc. Natl. Acad. Sci. U.S.A. 101:15724-15729(2004).
Yu W., et al. Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.
Jenkins C.M., et al. J. Biol. Chem. 279:48968-48975(2004).