

**Anti-LYPLA1 Antibody**  
**Rabbit polyclonal antibody to LYPLA1**  
**Catalog # AP60085****Specification**

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**Anti-LYPLA1 Antibody - Product Information**

Application	WB, IF/IC, IHC
Primary Accession	<a href="#">O75608</a>
Other Accession	<a href="#">P97823</a>
Reactivity	Human, Mouse, Rat, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24670

**Anti-LYPLA1 Antibody - Additional Information****Gene ID** 10434**Other Names**

APT1; LPL1; Acyl-protein thioesterase 1; APT-1; hAPT1; Lysophospholipase 1; Lysophospholipase I; LPL-I; LysoPLA I

**Target/Specificity**

Recognizes endogenous levels of LYPLA1 protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

IF/IC~~N/A

IHC~~1:100~500

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-LYPLA1 Antibody - Protein Information****Name** LYPLA1**Synonyms** APT1, LPL1**Function**

Acts as an acyl-protein thioesterase (PubMed:&lt;a href="http://www.uniprot.org/citations/19439193" target="\_blank"&gt;19439193&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/20418879" target="\_blank"&gt;20418879&lt;/a&gt;). Hydrolyzes fatty acids from S-acylated cysteine residues in proteins such as trimeric G alpha proteins or HRAS

(PubMed:<a href="http://www.uniprot.org/citations/20418879" target="\_blank">20418879</a>). Acts as a palmitoyl thioesterase that catalyzes depalmitoylation of proteins, such as ADRB2, KCNMA1 and SQSTM1 (PubMed:<a href="http://www.uniprot.org/citations/22399288" target="\_blank">22399288</a>, PubMed:<a href="http://www.uniprot.org/citations/27481942" target="\_blank">27481942</a>, PubMed:<a href="http://www.uniprot.org/citations/37802024" target="\_blank">37802024</a>). Acts as a negative regulator of autophagy by mediating palmitoylation of SQSTM1, decreasing affinity between SQSTM1 and ATG8 proteins and recruitment of ubiquitinated cargo proteins to autophagosomes (PubMed:<a href="http://www.uniprot.org/citations/37802024" target="\_blank">37802024</a>). Acts as a lysophospholipase and hydrolyzes lysophosphatidylcholine (lyso-PC) (PubMed:<a href="http://www.uniprot.org/citations/19439193" target="\_blank">19439193</a>). Also hydrolyzes lysophosphatidylethanolamine (lyso- PE), lysophosphatidylinositol (lyso-PI) and lysophosphatidylserine (lyso-PS) (By similarity). Has much higher thioesterase activity than lysophospholipase activity (PubMed:<a href="http://www.uniprot.org/citations/19439193" target="\_blank">19439193</a>). Contributes to the production of lysophosphatidic acid (LPA) during blood coagulation by recognizing and cleaving plasma phospholipids to generate lysophospholipids which in turn act as substrates for ENPP2 to produce LPA (PubMed:<a href="http://www.uniprot.org/citations/21393252" target="\_blank">21393252</a>).

#### **Cellular Location**

Cytoplasm. Cell membrane. Nucleus membrane. Endoplasmic reticulum. Note=Shows predominantly a cytoplasmic localization with a weak expression in the cell membrane, nuclear membrane and endoplasmic reticulum.

#### **Tissue Location**

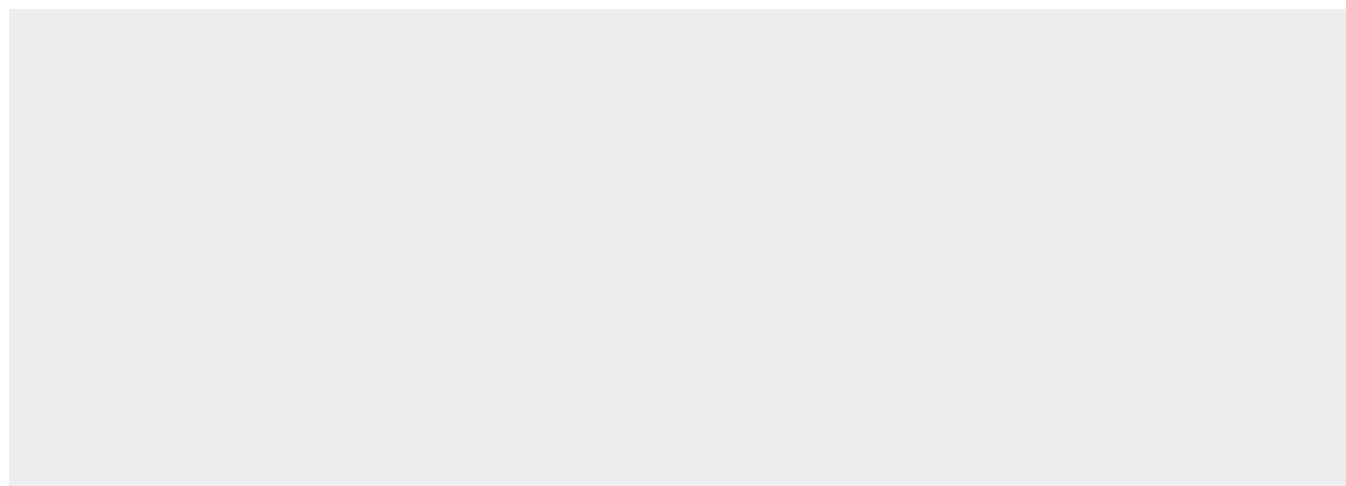
Platelets..

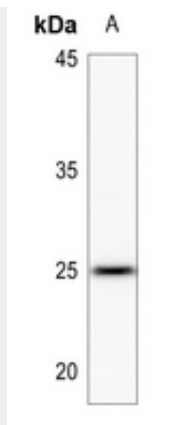
#### **Anti-LYPLA1 Antibody - Protocols**

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

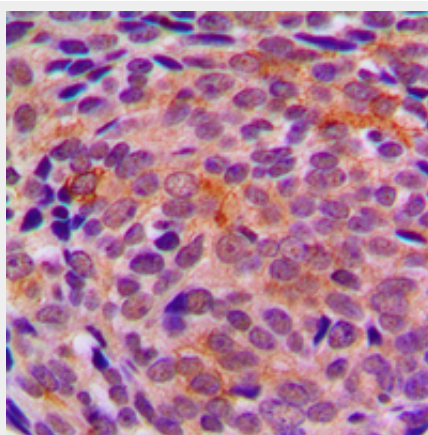
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **Anti-LYPLA1 Antibody - Images**

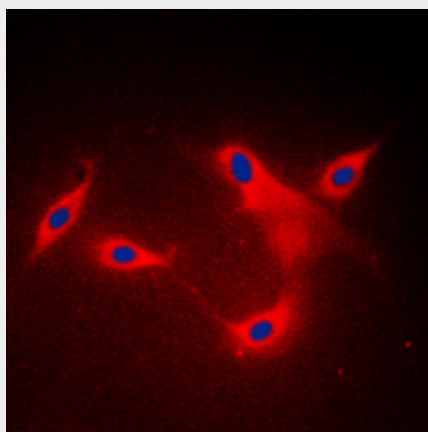




Western blot analysis of LYPLA1 expression in rat lung (A) whole cell lysates.



Immunohistochemical analysis of LYPLA1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of LYPLA1 staining in MDAMB453 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### Anti-LYPLA1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human LYPLA1. The exact sequence is proprietary.