

Rabbit anti-Human PLVAP Polyclonal Antibody | anti-PLVAP antibody

Anti-PLVAP Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127418	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

PLVAP; Polyclonal Antibody; Anti-PLVAP Antibody Picoband; forkhead box K1; Forkhead box protein F1; Forkhead-related activator 1; FREAC-1; Forkhead-related protein FKHL5; Forkhead-related transcription factor 1; FOXF1; FKHL5; FREAC1; anti-PLVAP antibody

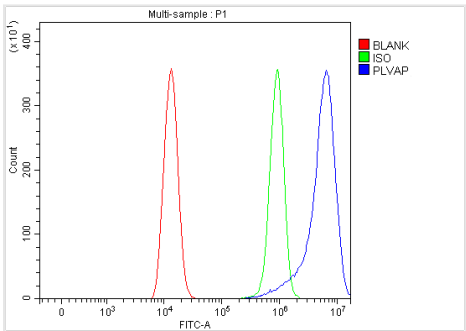
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Expressed in kidney.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-PLVAP antibody	ELISA, FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E coli-derived human PLVAP recombinant protein (Position: N51-K422).
Subcellular Localization	Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Transcriptional regulator involved in different processes such as glucose metabolism, aerobic glycolysis, muscle cell differentiation and autophagy. Recognizes and binds the forkhead DNA sequence motif (5'-GTAAACA-3') and can both act as a transcription activator or repressor, depending on the context. Together with FOXK2, acts as a key regulator of metabolic reprogramming towards aerobic glycolysis, a process in which glucose is converted to lactate in the presence of oxygen. Acts by promoting expression of enzymes for glycolysis (such as hexokinase-2 (HK2), phosphofructokinase, pyruvate kinase (PKLR) and lactate dehydrogenase), while suppressing further oxidation of pyruvate in the mitochondria by up-regulating pyruvate dehydrogenase kinases PDK1 and PDK4. Probably plays a role in gluconeogenesis during overnight fasting, when lactate from white adipose tissue and muscle is the main substrate. Involved in mTORC1-mediated metabolic reprogramming: in response to mTORC1 signaling, translocates into the nucleus and regulates the expression of genes associated with glycolysis and downstream anabolic pathways, such as HIF1A, thereby regulating glucose metabolism. Together with FOXK2, acts as a negative regulator of autophagy in skeletal muscle: in response to starvation, enters the nucleus, binds the promoters of autophagy genes and represses their expression, preventing proteolysis of skeletal muscle proteins. Acts as a transcriptional regulator of the myogenic progenitor cell population in skeletal muscle. Binds to the upstream enhancer region (CCAC box) of myoglobin (MB) gene, regulating the myogenic progenitor cell population. Promotes muscle progenitor cell proliferation by repressing the transcriptional activity of FOXO4, thereby inhibiting myogenic differentiation. Involved in remodeling processes of adult muscles that occur in response to physiological stimuli. Required to correct temporal orchestration of molecular and cellular events necessary for muscle repair. Represses myogenic differentiation by inhibiting MEFC activity. Positively regulates Wnt/beta-catenin signaling by translocating DVL into the nucleus. Reduces virus replication, probably by binding the interferon stimulated response element (ISRE) to promote antiviral gene expression.

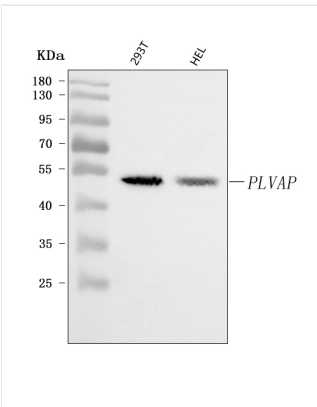
Preparation and Storage

At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)
Figure 2. Flow Cytometry analysis of HEL cells using anti-PLVAP antibody (AAA127418).Overlay histogram showing HEL cells stained with AAA127418 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PLVAP Antibody (AAA127418, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)
Figure 1. Western blot analysis of PLVAP using anti-PLVAP antibody (AAA127418).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human 293T whole cell lysates,Lane 2: human HEL whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PLVAP antigen affinity purified polyclonal antibody (#AAA127418) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PLVAP at approximately 53 kDa. The expected band size for PLVAP is at 51 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-PLVAP antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-PLVAP antibody	Primary Antibodies; Cell Biology
References	1. Broekaert, I. J., Becker, K., Gottschalk, I., Korber F., Dotsch, J., Thiele, H., Altmuller, J., Nurnberg, P., Hunseler, C., Cirak, S. Mutations in plasmalemma vesicle-associated protein cause severe syndromic protein-losing enteropathy.. J. Med. Genet. 55: 637-640, 2018. 2. Elkadri, A., Thoeni, C., Deharvengt, S. J., Murchie, R., Guo, C., Stavropoulos, J. D., Marshall, C. R., Wales, P., Bandsma, R. H. J., Cutz, E., Roifman, C. M., Chitayat, D., Avitzur, Y., Stan, R. V., Muise A. M. Mutations in plasmalemma vesicle associated protein result in sieving protein-losing enteropathy characterized by hypoproteinemia, hypoalbuminemia, and hypertriglyceridemia. Cell. Molec. Gastroent. Hepatol. 1: 381-394, 2015. 3. Herrnberger, L., Seitz, R., Kuespert, S., Bosl, M. R., Fuchshofer, R., Tamm, E. R. Lack of endothelial diaphragms in fenestrae and caveolae of mutant Plvap-deficient mice. Histochem. Cell Biol. 138: 709-724, 2012.

NCBI AND UNIPROT INFORMATION

NCBI GI #	13775238
NCBI GeneID	83483
NCBI Accession #	NP_112600.1
NCBI GenBank Nucleotide #	NM_031310.2
UniProt Accession #	Q9BX97; Q86VP0; Q8N8Y0; Q8ND68; Q8TER8; Q9BZD5

Molecular Weight	50,594 Da
NCBI Official Full Name	plasmalemma vesicle-associated protein
NCBI Official Synonym Full Names	plasmalemma vesicle associated protein
NCBI Official Symbol	PLVAP
NCBI Official Synonym Symbols	PV1; FELS; PV-1; gp68
NCBI Protein Information	plasmalemma vesicle-associated protein
UniProt Protein Name	Plasmalemma vesicle-associated protein
UniProt Gene Name	PLVAP
UniProt Synonym Gene Names	FELS; PV1; PV-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/plvap-antibody-flow-cytometry-western-blot-elisa/127418>