

Rabbit FXYD1/PLM Polyclonal Antibody | anti-FXYD1/PLM antibody

Phospho-FXYD1/PLM (Ser88/Ser89) Antibody

CATALOG # AAA329315	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry
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PRODUCT SYNONYMS

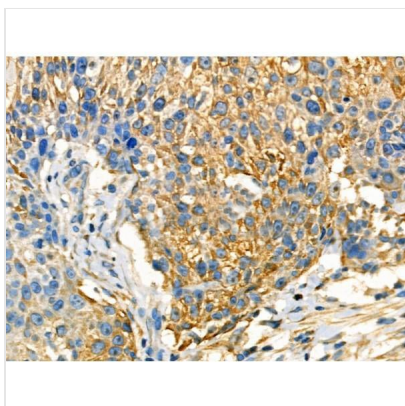
FXYD1/PLM; Polyclonal Antibody; Phospho-FXYD1/PLM (Ser88/Ser89) Antibody; FXYD domain containing ion transport regulator 1; Phospholemman; PLM; anti-FXYD1/PLM antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-FXYD1/PLM (Ser88/Ser89) Antibody detects endogenous levels of FXYD1/PLM only when phosphorylated at Ser88/89. Tissue Specificity: Highest expression in skeletal muscle and heart. Moderate levels in brain, placenta, lung, liver, pancreas, uterus, bladder, prostate, small intestine and colon with mucosal lining. Very low levels in kidney, colon and small intestine without mucosa, prostate without endothelial lining, spleen, and testis.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-FXYD1/PLM antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human FXYD1/PLM around the phosphorylation site of Ser88/89.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Major plasma membrane substrate for cAMP-dependent protein kinase (PKA) and protein kinase C (PKC) in several different tissues (By similarity). Phosphorylated in response to insulin and adrenergic stimulation (By similarity). Phosphorylation at Ser-88 stimulates sodium/potassium-transporting ATPase activity while the unphosphorylated form inhibits sodium/potassium-transporting ATPase activity (By similarity). Phosphorylation increases tetramerization, decreases binding to ATP1A1 and reduces inhibition of ATP1A1 activity (By similarity). Phosphorylation at Ser-83 leads to greatly reduced interaction with ATP1A1, ATP1A2 and ATP1A3 (By similarity). May be phosphorylated by DMPK. Palmitoylation increases half-life and stability and is enhanced upon phosphorylation at Ser-88 by PKA.
Subunit Structure	Homotetramer. Monomer. Regulatory subunit of the sodium/potassium-transporting ATPase (NKA) which is composed of a catalytic alpha subunit, an auxiliary non-catalytic beta subunit and an additional regulatory subunit (By similarity). The monomeric form associates with NKA while the oligomeric form does not (By similarity). Interacts with the catalytic alpha-1 subunit ATP1A1 (By similarity). Also interacts with the catalytic alpha-2 and alpha-3 subunits ATP1A2 and ATP1A3 (By similarity). Very little interaction with ATP1A1, ATP1A2 or ATP1A3 when phosphorylated at Ser-83 (By similarity). Interacts with the non-catalytic beta-1 subunit ATP1B1 (By similarity). Oxidative stress decreases interaction with ATP1A1 but increases interaction with ATP1B1 (By similarity).

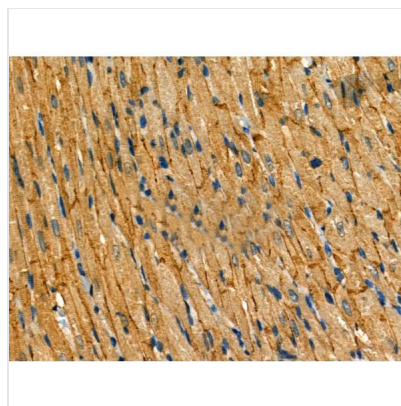
Similarity	The cytoplasmic domain is sufficient to regulate sodium/potassium-transporting ATPase activity.Belongs to the FXYD family.
Subcellular Location	Cell membrane>Sarcolemma>Single-pass type I membrane protein. Apical cell membrane>Single-pass type I membrane protein. Membrane>Caveola. Cell membrane>Sarcolemma>T-tubule. Note: Detected in the apical cell membrane in brain. In myocytes, localizes to sarcolemma, t-tubules and intercalated disks.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)

Staining Human ovarian cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-FXYD1/PLM antibody	Associates with and regulates the activity of the sodium/potassium-transporting ATPase (NKA) which transports Na (+) out of the cell and K (+) into the cell. Inhibits NKA activity in its unphosphorylated state and stimulates activity when phosphorylated. Reduces glutathionylation of the NKA beta-1 subunit ATP1B1, thus reversing glutathionylation-mediated inhibition of ATP1B1. Contributes to female sexual development by maintaining the excitability of neurons which secrete gonadotropin-releasing hormone.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	11612672
NCBI GeneID	5348
NCBI Accession #	NP_005022.2
NCBI GenBank Nucleotide #	NM_005031.4
UniProt Accession #	O00168; A8K196
Molecular Weight	92
NCBI Official Full Name	phospholemman
NCBI Official Synonym Full Names	FXYD domain containing ion transport regulator 1
NCBI Official Symbol	FXYD1
NCBI Official Synonym Symbols	PLM
NCBI Protein Information	phospholemman
UniProt Protein Name	Phospholemman

UniProt Gene Name	FXYD1
UniProt Synonym Gene Names	PLM
UniProt Entry Name	PLM_HUMAN

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/fxyd1-plm-antibody-peptide-elisa-immunohistochemistry-elisa/329315>