10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

FXYD1 Rabbit pAb

Catalog # AP98268

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O00168
Other Accession	O00168
Predicted	Rat, Pig, Human, Mouse, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	10441
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FXYD1
Epitope Specificity	21-75/92
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the FXYD family.
Post-translational modifications	Major plasma membrane substrate for cAMP-dependent protein kinase (PK-A) and protein kinase C (PK-C) in several different tissues. Phosphorylated in response to insulin and adrenergic stimulation. May be phosphorylated by DMPK (By similarity).Palmitoylation increases half-life and stability, it is enhanced upon phosphorylation at Ser-88 by PKA.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	PLM (FXYD1)is a member of a family of small membrane proteins that share a 35-amino acid signature sequence domain, beginning with the sequence PFXYD and containing 7 invariant and 6 highly conserved amino acids. FXYD2, also known as the gamma subunit of the Na,K-ATPase, regulates the properties of that enzyme. FXYD1 (phospholemman), FXYD2 (gamma), FXYD3 (MAT-8), FXYD4 (CHIF), and FXYD5 (RIC) have been shown to induce channel activity in experimental expression systems. PLM may be phosphorylated by several kinases, including protein kinase A, protein kinase C, NIMA kinase, and myotonic dystrophy kinase. It is thought to form an ion channel or regulate ion channel activity.

Additional Information

Gene ID	5348
Other Names	PLM; 0610012C17Rik; 1110006M24Rik; Pml; PLM_CANLF; FXYD1; FXYD domain-containing ion transport regulator 1; Sodium/potassium-transporting ATPase subunit FXYD1; PLM_HUMAN; PLM_MOUSE; PLM_RAT; FXYD domain containing ion transport regulator 1; phospholemman
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	FXYD1 (HGNC:4025)
Function	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.
Cellular Location	Cell membrane, sarcolemma {ECO:0000250|UniProtKB:P56513}; Single-pass type I membrane protein. Apical cell membrane {ECO:0000250|UniProtKB:O08589}; Single-pass type I membrane protein. Membrane, caveola {ECO:0000250|UniProtKB:O08589}. Cell membrane, sarcolemma, T-tubule {ECO:0000250|UniProtKB:O08589}. Note=Detected in the apical cell membrane in brain. In myocytes, localizes to sarcolemma, t-tubules and intercalated disks. {ECO:0000250|UniProtKB:O08589}
Tissue Location	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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.