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Anti-FXYD1 Picoband Antibody

Catalog # ABO12390

Specification

Anti-FXYD1 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	O00168
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Phospholemman(FXYD1) detection. Tested with WB, IHC-P in Human;Rat;Mouse.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-FXYD1 Picoband Antibody - Additional Information

Gene ID 5348

Other Names
Phospholemman, FXYD domain-containing ion transport regulator 1, FXYD1, PLM

Calculated MW
10441 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Membrane; Single-pass type I membrane protein.

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.

Protein Name
Phospholemman

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human FXYD1 recombinant protein (Position: E21-R92). Human FXYD1 shares 86.1%

and 87.5% amino acid (aa) sequence identity with mouse and rat FXYD1, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-FXYD1 Picoband Antibody - 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

Anti-FXYD1 Picoband 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 Cytomety
- Cell Culture

Anti-FXYD1 Picoband Antibody - Images

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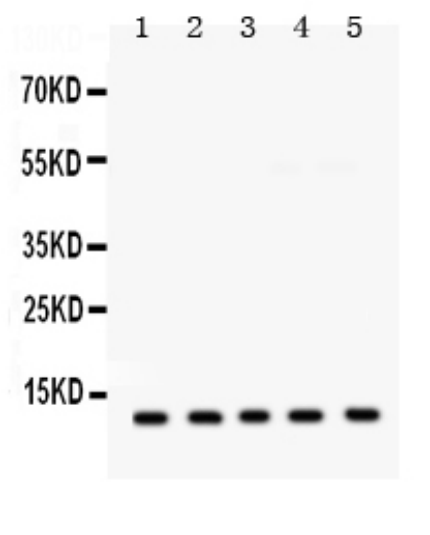
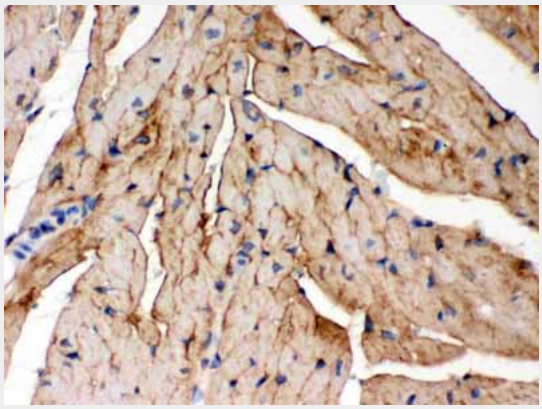
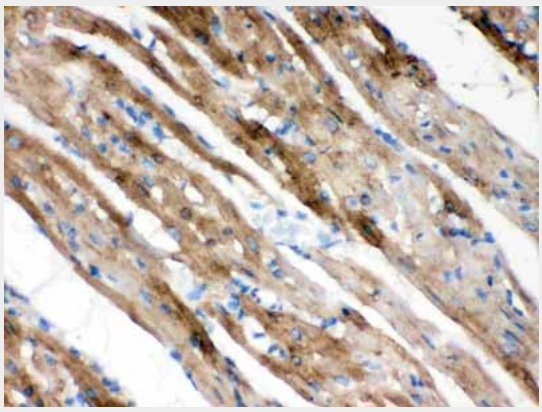


Anti- FXYZ1 Picoband antibody, ABO12390, Western blottingAll lanes: Anti FXYZ1 (ABO12390) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Rat Cardiac Muscle Tissue Lysate at 50ugLane 3: Mouse Cardiac Muscle Tissue Lysate at 50ugLane 4: HEPG2 Whole Cell Lysate at 40ugLane 5: HELA Whole Cell Lysate at 40ugPredicted bind size: 10KDObserved bind size: 10KD



Anti- FXYZ1 Picoband antibody, ABO12390, IHC(P)IHC(P): Mouse Cardiac Muscle Tissue



Anti- FXYZ1 Picoband antibody, ABO12390, IHC(P)IHC(P): Rat Cardiac Muscle Tissue

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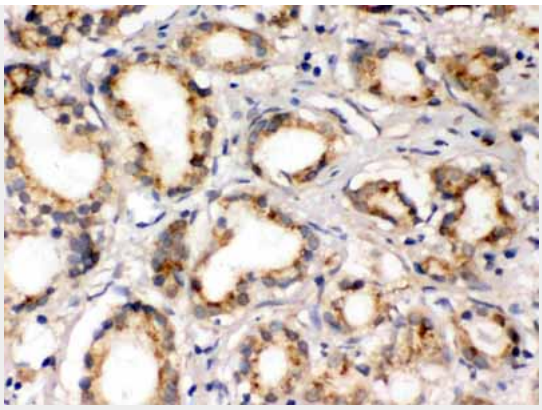

Anti- FXYZ1 Picoband antibody, ABO12390, IHC(P)IHC(P): Human Prostatic Cancer Tissue

Anti-FXYD1 Picoband Antibody - Background

PhospholemmanÂ is aÂ proteinÂ that in humans is encoded by theÂ FXYD1Â gene. This gene encodes 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. The approved human gene nomenclature for the family is FXYD-domain containing ion transport regulator. FXYD1 (phospholemman), FXYD2 (gamma), FXYD3 (MAT-8), FXYD4 (CHIF), and FXYD5 (RIC) have been shown to induce channel activity in experimental expression systems. Transmembrane topology has been established for two family members (FXYD1 and FXYD2), with the N-terminus extracellular and the C-terminus on the cytoplasmic side of the membrane. The protein encoded by this gene is a plasma membrane substrate for several kinases, including protein kinase A, protein kinase C, NIMA kinase, and myotonic dystrophy kinase. Transcript variants with different 5' UTR sequences have been described in the literature.