

Vinculin Rabbit pAb

Vinculin Rabbit pAb

Catalog # AP52145

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P18206
Reactivity	Rat, Human, Mouse
Predicted	Pig, Dog, Rabbit, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	123799
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Vinculin
Epitope Specificity	1001-1134/1134
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytoskeleton. Cell junction, adherens junction. Cell membrane; Peripheral membrane protein; Cytoplasmic side.
DISEASE	Defects in VCL are the cause of cardiomyopathy dilated type 1W (CMD1W) [MIM:611407]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death. Defects in VCL are the cause of cardiomyopathy familial hypertrophic type 15 (CMH15) [MIM:613255]. It is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Vinculin is a cytoskeletal protein associated with cell-cell and cell-matrix junctions, where it is thought to function as one of several interacting proteins involved in anchoring F-actin to the membrane. Defects in VCL are the cause of cardiomyopathy dilated type 1W. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Multiple alternatively spliced transcript variants have been found for this gene, but the biological validity of some variants has not been determined. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	7414
---------	------

Other Names	Vinculin, Metavinculin, MV, VCL
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=3ug/Test
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	VCL
Function	Actin filament (F-actin)-binding protein involved in cell- matrix adhesion and cell-cell adhesion. Regulates cell-surface E- cadherin expression and potentiates mechanosensing by the E-cadherin complex. May also play important roles in cell morphology and locomotion.
Cellular Location	Cell membrane {ECO:0000250 UniProtKB:P12003}; Peripheral membrane protein {ECO:0000250 UniProtKB:P12003}; Cytoplasmic side {ECO:0000250 UniProtKB:P12003}. Cell junction, adherens junction {ECO:0000250 UniProtKB:P12003}. Cell junction, focal adhesion {ECO:0000250 UniProtKB:P12003}. Cytoplasm, cytoskeleton {ECO:0000250 UniProtKB:P85972}. Cell membrane, sarcolemma {ECO:0000250 UniProtKB:Q64727}; Peripheral membrane protein {ECO:0000250 UniProtKB:Q64727}; Cytoplasmic side {ECO:0000250 UniProtKB:Q64727}. Cell projection, podosome {ECO:0000250 UniProtKB:Q64727}. Cytoplasm, perinuclear region {ECO:0000250 UniProtKB:Q64727}. Note=Recruitment to cell-cell junctions occurs in a myosin II-dependent manner. Interaction with CTNNB1 is necessary for its localization to the cell-cell junctions {ECO:0000250 UniProtKB:P12003}
Tissue Location	Metavinculin is muscle-specific.

Background

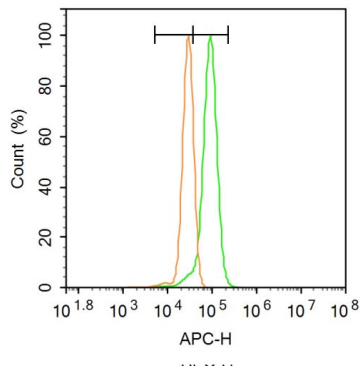
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

References

Weller P.A.,et al.Proc. Natl. Acad. Sci. U.S.A. 87:5667-5671(1990).
 Bechtel S.,et al.BMC Genomics 8:399-399(2007).
 Deloukas P.,et al.Nature 429:375-381(2004).
 Moiseyeva E.P.,et al.J. Biol. Chem. 268:4318-4325(1993).
 Lubec G.,et al.Submitted (DEC-2008) to UniProtKB.

Images

Blank control: A431.
 Primary Antibody (green line): Rabbit Anti-Vinculin antibody (AP52145)
 Dilution: 1 µg /10⁶ cells;



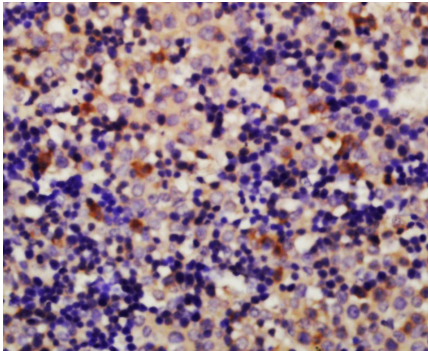
Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody: Goat anti-rabbit IgG-AF647

Dilution: 1 µg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Tissue/cell: mouse embryo tissue; 4%

Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3%

Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

Incubation: Anti-Vinculin Polyclonal Antibody, Unconjugated (AP52145) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody (SP-0023) and DAB (C-0010) staining

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