



Rabbit Anti-Vinculin antibody

SL6640R

Product Name:	Vinculin
Chinese Name:	粘着斑蛋白抗体
Alias:	CMD1W; CMH15; Epididymis luminal protein 114; HEL114; Metavinculin; MV; MVCL; OTTHUMP00000019861; OTTHUMP00000019862; VCL; VINC; VINC_HUMAN。
文献引用 PubMed :	<p>Specific References(6) SL6640R has been referenced in 6 publications.</p> <p>[IF=1.06]Li, Wei, et al. "Tanshinone II a protects against liopolysaccharides-induced endothelial cell injury via Rho/Rho kinase pathway."Chinese Journal of Integrative Medicine 20 (2014): 216-223.IF(ICC);Human. PubMed:24615214</p> <p>[IF=2.02]Jiang, Yue-Hua, et al. "Calycosin-7-O-β-D-glucoside promotes oxidative stress-induced cytoskeleton reorganization through integrin-linked kinase signaling pathway in vascular endothelial cells." BMC Complementary and Alternative Medicine 15.1 (2015): 315.IF(ICC);Human. PubMed:26346982</p> <p>[IF=1.22]Jiang, Y. H., et al. "Aqueous extracts of Tribulus terrestris protects against oxidized low-density lipoprotein-induced endothelial dysfunction." Chinese Journal of Integrative Medicine (2015).IF(ICC);Human. PubMed:26589608</p> <p>[IF=3.42]He, Jing, et al. "The essential role of inorganic substrate in the migration and osteoblastic differentiation of mesenchymal stem cells." Journal of the Mechanical Behavior of Biomedical Materials (2016).IF(ICC);Rabbit.</p>

	<p style="text-align: center;">PubMed:26905036</p> <p>[IF=3.23]Dhawan U, Pan HA, Lee CH, Chu YH, Huang GS, Lin YR, et al. (2016) Spatial Control of Cell-Nanosurface Interactions by Tantalum Oxide Nanodots for Improved Implant Geometry. PLoS ONE 11(6): e0158425.IF(ICC);Human.</p> <p style="text-align: center;">PubMed:27362432</p> <p>[IF=2.58]Dhawan, Udesh, et al. "The Spatiotemporal Control of Osteoblast Cell Growth, Behavior, and Function Dictated by Nanostructured Stainless Steel Artificial Microenvironments." Nanoscale Research Letters 12.1 (2017): 86.IF(ICC);Human.</p> <p style="text-align: center;">PubMed:28168610</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=3ug/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	125kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Vinculin:1001-1134/1134
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	<p>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]</p> <p>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</p>

by the E-cadherin complex. May also play important roles in cell morphology and locomotion.

Subunit:

Exhibits self-association properties. Interacts with NRAP and SORBS1 (By similarity). Interacts with TLN1. Interacts with SYNM. Interacts with CTNNB1 and this interaction is necessary for its localization to the cell-cell junctions and for its function in regulating cell surface expression of E-cadherin.

Subcellular Location:

Cytoplasm, cytoskeleton. Cell junction, adherens junction. Cell membrane; Peripheral membrane protein; Cytoplasmic side.

Tissue Specificity:

Metavinculin is muscle-specific.

Post-translational modifications:

Phosphorylated; on serines, threonines and tyrosines. Phosphorylation on Tyr-1133 in activated platelets affects head-tail interactions and cell spreading but has no effect on actin binding nor on localization to focal adhesion plaques (By similarity). Aceylated; mainly by myristic acid but also small amount of palmitic acid (By similarity).

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.

Similarity:

Belongs to the vinculin/alpha-catenin family.

SWISS:

P18206

Gene ID:

7414

Database links:

[Entrez Gene: 7414](#)Human

[Entrez Gene: 22330](#)Mouse

[Entrez Gene: 305679](#)Rat

[Omim: 193065](#)Human

[SwissProt: P18206](#)Human

[SwissProt: Q64727](#)Mouse

[SwissProt: P85972](#)Rat

[Unigene: 643896](#)Human

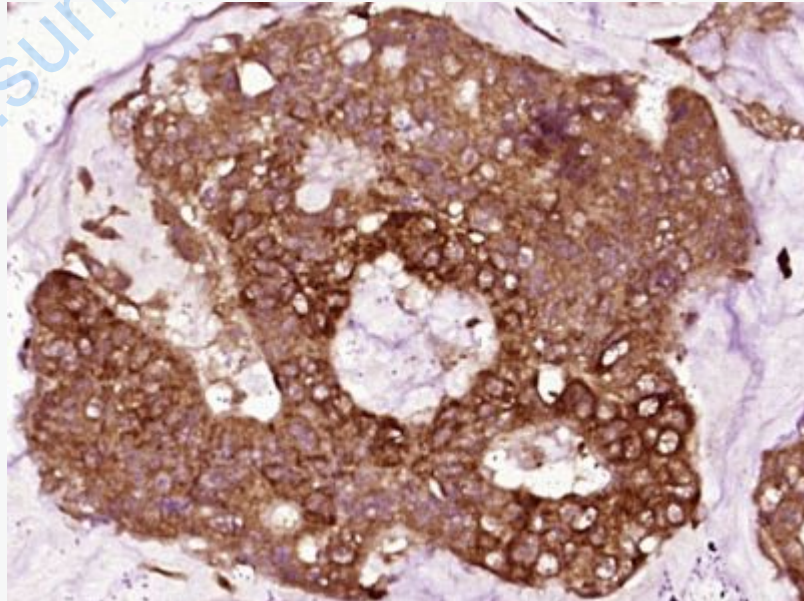
[Unigene: 279361](#)Mouse

[Unigene: 164613](#)Rat

Important Note:

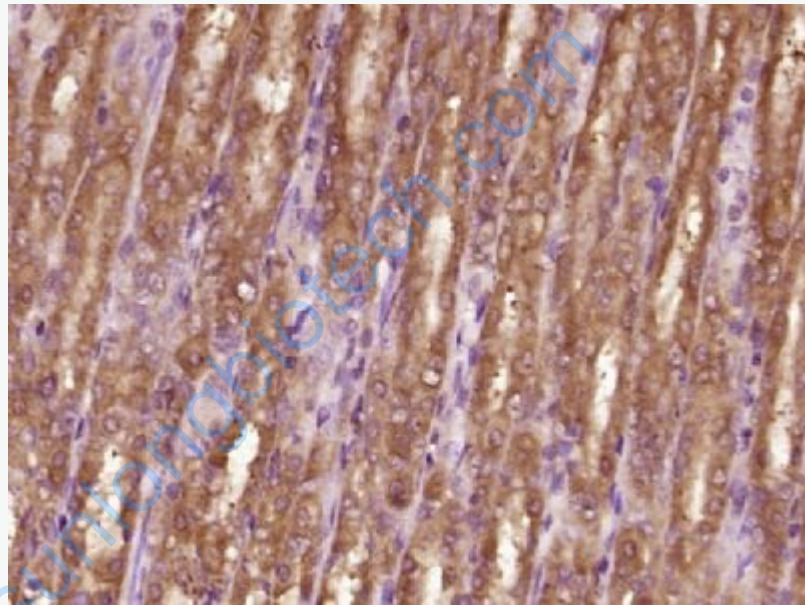
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Picture:

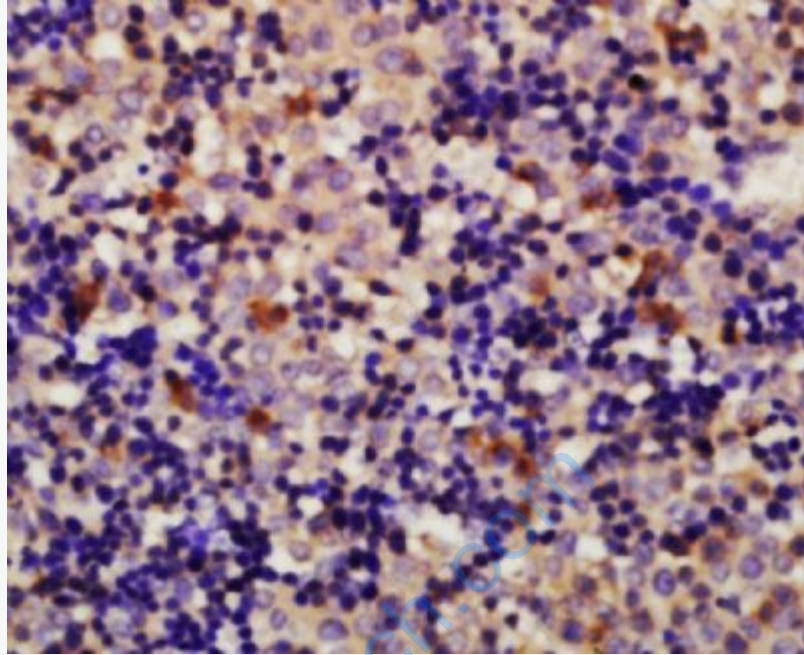


Paraformaldehyde-fixed, paraffin embedded (human cervical carcinoma); Antigen

retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Vinculin) Polyclonal Antibody, Unconjugated (SL6640R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



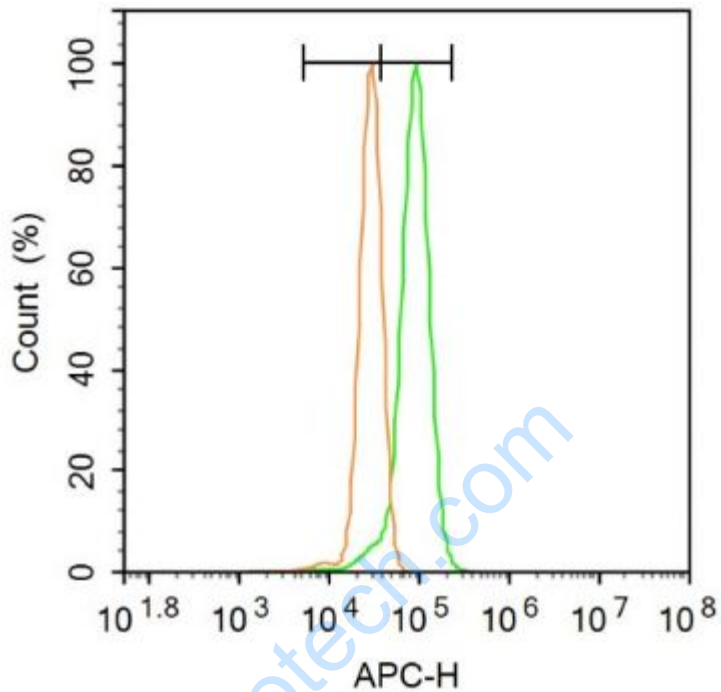
Paraformaldehyde-fixed, paraffin embedded (rat stomach tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Vinculin) Polyclonal Antibody, Unconjugated (SL6640R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



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(SL6640R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: A431.

Primary Antibody (green line): Rabbit Anti-Vinculin antibody (SL6640R)

Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody: Goat anti-rabbit IgG-AF647

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 20% 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 -20°C . 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.
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