SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-Vinculin antibody

Catalog Number: SL23650R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Vinculin
Immunogen:	KLH conjugated synthetic peptide derived from human Vinculin: 1031-1134/1134
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:100-500 IHC-F=1:100-500 ICC/IF=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse(predicted:Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep)
Predicted MW.:	125kDa
Subcellular Location:	cytoplasmic The cell membrane
Background:	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] **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

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	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. **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

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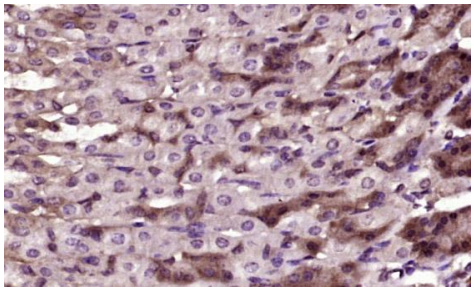
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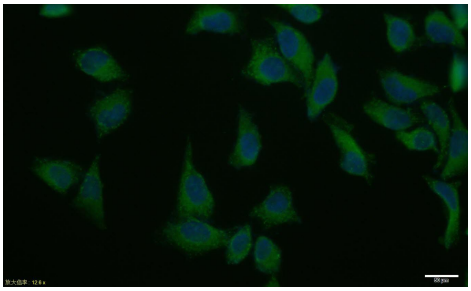
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[VALIDATION IMAGES]



Paraformaldehyde-fixed, paraffin embedded (mouse 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 (SL23650R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Vinculin) polyclonal Antibody, Unconjugated (SL23650R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

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