

# Vinculin Antibody

Catalog # ASC11704

## Product Information

Application	WB, IF, E, IHC-P
Primary Accession	<a href="#">P18206</a>
Other Accession	<a href="#">NP_003364</a> , <a href="#">4507877</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	123799
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Vinculin antibody can be used for detection of Vinculin by Western blot at 1 - 2 µg/ml.

## Additional Information

Gene ID	7414
Other Names	Vinculin, Metavinculin, MV, VCL
Target/Specificity	VCL; Vinculin antibody is human, mouse and rat specific. At least three isoforms of Vinculin are known to exist.
Reconstitution & Storage	Vinculin antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	Vinculin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## 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}. 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.

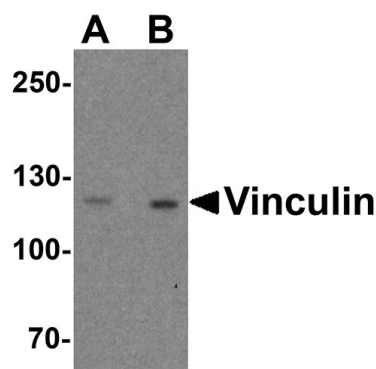
## Background

Vinculin is a cytoskeletal protein that plays an important role in the regulation of focal adhesions and embryonic development (1). Three structural vinculin domains include an amino-terminal head, a short flexible proline-rich region and a carboxy-terminal tail (2). Expression of vinculin were shown to be affected by the level of actin expression (2,3). Vinculin deficiencies are associated with a decrease in cell adhesion and an increase in cell motility, suggesting a possible role in metastatic growth (4). Defects in VCL are the cause of cardiomyopathy dilated type 1W (CMD1W) (5).

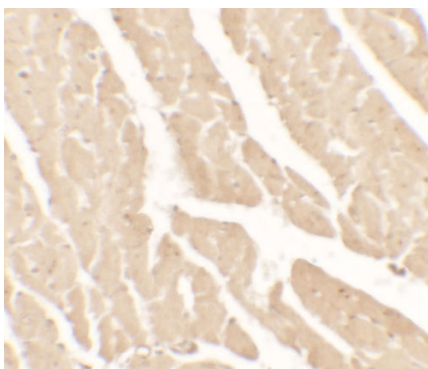
## References

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Gilmore AP, Jackson P, Waites GT, et al. Further characterization of the talin-binding site in the cytoskeletal protein vinculin. *J. Cell Sci.* 1992; 103:719-31.  
Deakin NO, Ballestrem C, and Turner CE. Paxillin and Hic-5 interaction with vinculin is differentially regulated by Rac1 and RhoA. *PLoS One* 2012; 7:e37990.  
Goldmann WH, Auernheimer V, Thievensen I, et al. Vinculin, cell mechanics and tumour cell invasion. *Cell Biol. Int.* 2013; Feb 1.

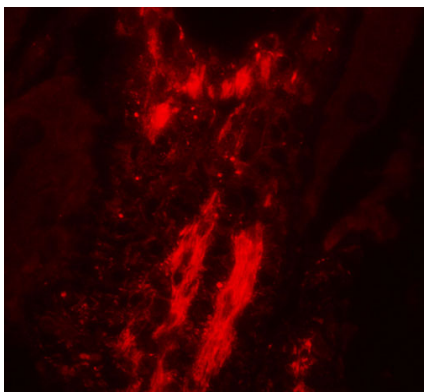
## Images



Western blot analysis of Vinculin in PC-3 cell lysate with Vinculin antibody at (A) 1 and (B) 2 µg/ml.



Immunohistochemistry of Vinculin in rat small intestine tissue with Vinculin antibody at 5 µg/mL.



Immunofluorescence of Vinculin in rat small intestine tissue with Vinculin antibody at 20 µg/mL.

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