

DESCRIPTION

Species Reactivity	Human/Rat
Specificity	Detects recombinant human Vinculin in direct ELISAs and human and rat Vinculin in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Vinculin Lys1020-Gln1134 Accession # P18206
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

VCL (Vinculin; from the Latin *vinculum* denoting a union or connection) is a 115-120 kDa cytoplasmic member of the vinculin/α-catenin family of proteins. The VCL gene is ubiquitously expressed and generates a series of globular domains whose N- and C-terminal globular regions self-associate to generate an inactive molecule. When at least two ligands bind to the molecule, it opens up, allowing for the formation of multiple complexes that impact both signaling and cell structure. Among other things, VCL is known to regulate the expression of E-cadherin, and to connect actin to integrins via talin. Human VCL is 1134 amino acids (aa) in length, and at this size, is commonly known as metavinculin. It contains an 835 aa N-terminal globular head that binds talin, β- and α-catenin, followed by a Pro-rich linker segment (aa 836-878) and a 27-29 kDa C-terminal tail that binds lipids plus paxillin and PKCα (aa 879-1134). At least seven utilized phosphorylation sites exist. There are three potential splice variants. One shows a deletion of aa 916-983 and is called vinculin. A second contains an alternative start site at Met74, and again possesses a deletion of aa 916-983. A third shows a 34 aa substitution for aa 262-1134. Over the range of aa used as the immunogen for this reagent (aa 1020-1134 in metavinculin; 952-1066 in vinculin), human and mouse VCL are identical in aa sequence.

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