## VCL (Phospho-Tyr1133/1065) Ab

Cat.#: AF8406 Concn.: 1mg/ml Mol.Wt.: 123kDa Size: 50ul,100ul,200ul Source: Rabbit Clonality: Polyclonal

Application: WB 1:1000-3000

Reactivity: Human, Mouse, Rat

Purification: The Ab is from purified rabbit serum by affinity purification

via sequential chromatography on phospho- and non-

phospho-peptide affinity columns.

Specificity: VCL (Phospho-Tyr1133/1065) Ab detects endogenous levels

of VCL only when phosphorylated at Tyr1133/1065

Immunogen: A synthesized peptide derived from human VCL (Phospho-

Tyr1133/1065)

Uniprot: P18206

Subcellular Location: Cytoplasm > cytoskeleton. Cell junction > adherens

junction. Cell membrane. Cytoplasmic face of adhesion plaques. 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.

Tissue Specificity: Metavinculin is muscle-specific.

Similarity: Exists in at least two conformations. When in the closed,

'inactive' conformation, extensive interactions between the head and tail domains prevent detectable binding to most of

its ligands. It takes on an 'active' conformation after cooperative and simultaneous binding of two different ligands. This activation involves displacement of the headtail interactions and leads to a significant accumulation of ternary complexes. The active form then binds a number of proteins that have both signaling and structural roles that are essential for cell adhesion. The N-terminal globular head (Vh) comprises of subdomains D1-D4. The C-terminal tail (Vt) binds F-actin and cross-links actin filaments into

bundles. In isoform 2 (metavinculin) a 68 residue insertion in the tail domain promotes actin severing instead of bundling. An intramolecular interaction between Vh and Vt masks the F-actin-binding domain located in Vt. The binding of talin and alpha-actinin to the D1 subdomain of vinculin induces a helical bundle conversion of this subdomain, leading to the

disruption of the intramolecular interaction and the exposure of the cryptic F-actin-binding domain of Vt. Vt inhibits actin filament barbed end elongation without affecting the critical

concentration of actin assembly. Belongs to the



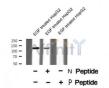
## Affinity Biosciences

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vinculin/alpha-catenin family.

Storage Condition and Buffer:

Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt



Western blot analysis VCL (Phospho-Tyr1133/1065) using EGF treated HepG2 whole cell lysates

<code>IMPORTANT:</code> For western blot, incubate membrane with diluted Ab in 5% w/v milk , 1X TBS, 0.1% Tween@20 at 4°C with gentle shaking, overnight.

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