E91758

VCL Polyclonal Antibody

Catalog Number: E91758
Amount: 100ul
Background: Vinculin is a cytoskeletal protein that plays an important role in the regulation of focal adhesions and embryonic development (1-4). Three structural vinculin domains include an amino-terminal head, a short, flexible proline-rich region and a carboxy-terminal tail (1). In the inactive state, the head and tail domains of vinculin interact to form a closed confirmation. The open and active form of vinculin translocates to focal adhesions where it is thought to be involved in anchoring F-actin to the membrane and regulation of cell migration (2). Phospholipid binding to the tail domain and subsequent phosphorylation of vinculin at Ser1033 and Ser1045 by PKC-α and Tyr100 and Tyr1065 by Src kinases weakens the head-tail interaction (5,6). This change in vinculin allows the binding of a number of other proteins, including talin, α-actinin and paxillin, which disrupts the head-tail interaction and initiates the conformational change from the inactive to active state (2,4). Vinculin deficiencies are associated with a decrease in cell adhesion and an increase in cell motility, suggesting a possible role in metastatic growth (7,8). This is supported by a recently demonstrated relationship between decreased vinculin expression and increased carcinogenesis and metastasis in colorectal carcinoma (9).
Species: Rabbit
Isotype: IgG
Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Synonyms: MV; MVCL; CMD1W; CMH15;
Immunogen: Recombinant protein of human VCL
Purification: Affinity purification
Reactivity: H M R
Applications: WB IHC
Molecular Weight: 124kDa
Swiss-Prot No. : P18206
Gene ID: 7414
References: 1. Izard, T. et al. (2004) Nature 427, 171-5. 2. Humphries, J.D. et al. (2007) J Cell Biol 179, 1043-57. 3. Witt, S. et al. (2004) J Biol Chem 279, 31533-43. 4. Xu, W. et al. (1998) Development 125, 327-37. 5. Ziegler, W.H. et al. (2002) J Biol Chem 277, 7396-404. 6. Zhang, Z. et al. (2004) Mol Biol Cell 15, 4234-47. 7. Rodríguez Fernández, J.L. et al. (1993) J Cell Biol 122, 1285-94. 8. Samuels, M. et al. (1993) J Cell Biol 121, 909-21. 9. Yang, H.J. et al. (2010) Cancer Invest 28, 127-34.

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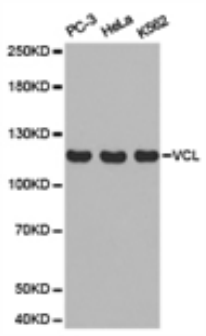
WB 1:500 - 1:2000

IHC 1:50- 1:200



Western blot analysis of extracts of various celllines, using VCL antibody.

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