



VASP Rabbit mAb

Catalog No	YP-rAb-17963
Isotype	IgG
Reactivity	Human
Applications	WB,IHC,IF,IP,ELISA
Gene Name	VASP
Protein Name	Vasodilator-stimulated phosphoprotein
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:1000-1:5000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200, Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	VASP;Vasodilator-stimulated phosphoprotein;VASP ; Vasodilator-stimulated phosphoprotein ; VASP
Observed Band	50kD
Calculated Molecular Weight	40kD
Cell Pathway	Cytoplasm
Tissue Specificity	Highly expressed in platelets.
Function	Domain:The EVH2 domain is comprised of 3 regions. Block A is a thymosin-like domain required for G-actin binding. The KLKR motif within this block is essential for the G-actin binding and for actin polymerization. Block B is required for F-actin binding and subcellular location, and Block C for tetramerization.,Domain:The WH1 domain mediates interaction with XIRP1.,Function:Ena/VASP proteins are actin-associated proteins involved in a range of processes dependent on cytoskeleton remodeling and cell polarity such as axon guidance and lamellipodial and filopodial dynamics in migrating cells. VASP promotes actin nucleation and increases the rate of actin polymerization in the presence of capping protein. Plays a role in actin-based activity of Listeria monocytogenes in platelets.,PTM:Major substrate for cAMP-dependent (PKA) and cGMP-dependent protein kinase (PKG) in platelets. The preferred site for PKA is Ser-157, the preferred site for PKG, Ser-239. In ADP-activated platelets, phosphorylation by



PKA or PKG on Ser-157 leads to fibrinogen receptor inhibition. Phosphorylation on Thr-278 requires prior phosphorylation on Ser-157 and Ser-239. In response to phorbol ester (PMA) stimulation, phosphorylated by PKC/PRKCA. In response to thrombin, phosphorylated by both PKC and ROCK1.,similarity:Belongs to the Ena/VASP family.,similarity:Contains 1 WH1 domain.,subcellular location:Targeted to stress fibers and focal adhesions through interaction with a number of proteins including MRL family members. Localizes to the plasma membrane in protruding lamellipodia and filopodial tips. Stimulation by thrombin or PMA, also translocates VASP to focal adhesions.,subunit:Homotetramer. Interacts with PFN1, PFN2, LPP, ACTN1 and ACTG1. Interacts, via the EV H1, with the Pro-rich regions of ZYX. This interaction is important for targeting to focal adhesions and the formation of actin-rich structures at the apical surface of cells. Interacts, via the EVH1 domain, with the Pro-rich domain of Listeria monocytogenes actA. Interacts with APBB1IP. Interacts, via the Pro-rich domain, with the C-terminal SH3 domain of DNMBP.,tissue specificity:Highly expressed in platelets.,

Background

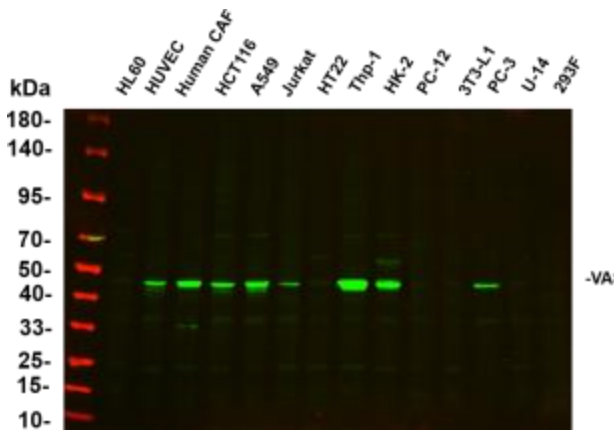
Vasodilator-stimulated phosphoprotein (VASP) is a member of the Ena-VASP protein family. Ena-VASP family members contain an EHV1 N-terminal domain that binds proteins containing E/DFPPPPXD/E motifs and targets Ena-VASP proteins to focal adhesions. In the mid-region of the protein, family members have a proline-rich domain that binds SH3 and WW domain-containing proteins. Their C-terminal EVH2 domain mediates tetramerization and binds both G and F actin. VASP is associated with filamentous actin formation and likely plays a widespread role in cell adhesion and motility. VASP may also be involved in the intracellular signaling pathways that regulate integrin-extracellular matrix interactions. VASP is regulated by the cyclic nucleotide-dependent kinases PKA and PKG. [provided by RefSeq, Jul 2008],

matters needing attention

Avoid repeated freezing and thawing!

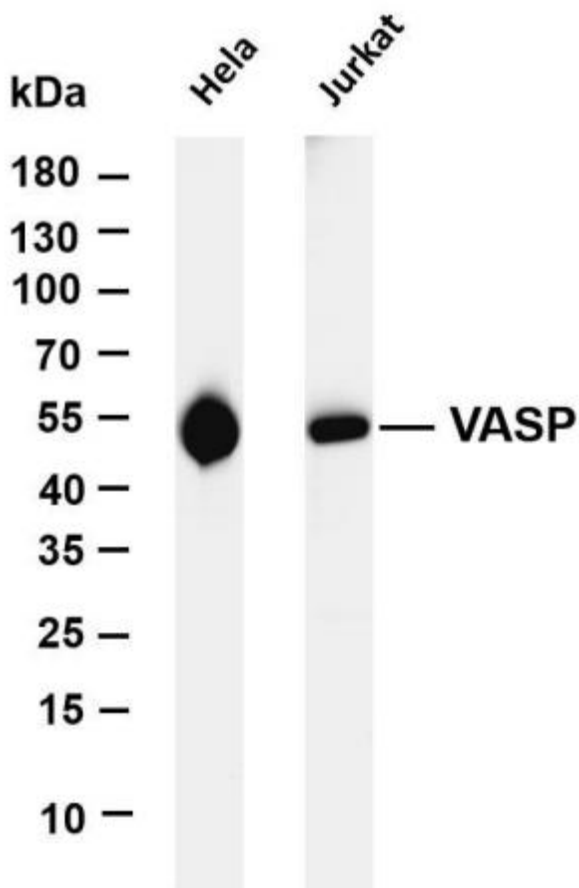
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

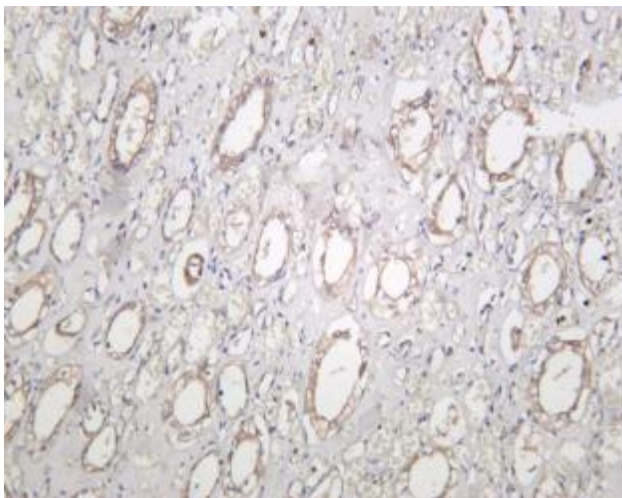


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:2500 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody



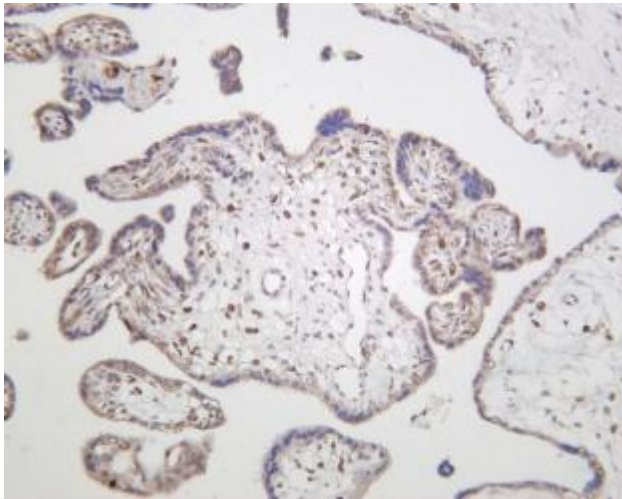


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-VASP antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: Jurkat Predicted band size: 40kDa Observed band size: 50kDa

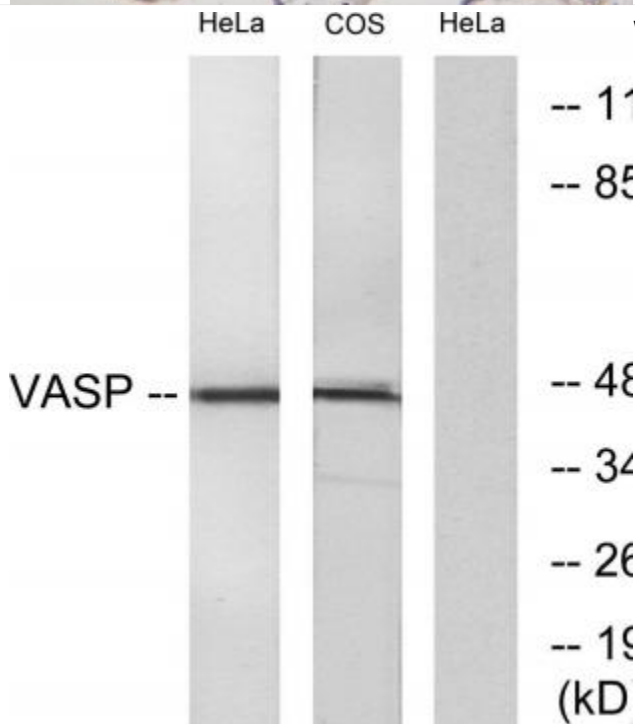


Human kidney was stained with anti-VASP rabbit antibody





Human placenta was stained with anti-VASP rabbit antibody



Western blot analysis of lysates from HeLa and COS7 cells, using VASP Antibody. The lane on the right is blocked with the synthesized peptide.

