Rabbit VASP Polyclonal Antibody | anti-VASP antibody

Phospho-VASP (Ser157) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321643	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

VASP; Polyclonal Antibody; Phospho-VASP (Ser157) Antibody; Vasodilator stimulated phosphoprotein; Vasodilator-stimulated phosphoprotein; VASP_HUMAN; anti-VASP antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-VASP (Ser157) antibody detects endogenous levels of VASP only when phosphorylated at Serine 157
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	380
Applicable Applications for anti-VASP antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human VASP around the phosphorylation site of Serine 157
Subcellular Location	Cytoplasm. Cytoplasm > Cytoskeleton. Cell Junction > Focal Adhesion. Cell Projection > Lamellipodium Membrane. Cell Projection > Filopodium Membrane. 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. Localized along the sides of actin filaments throughout the peripheral cytoplasm under basal conditions.
Tissue Specificity	Highly expressed in platelets.
Predicted Cross Reactivity	**Pig, Bovine, Sheep, Dog**
Similarity	Pig (88%), Bovine (83%), Sheep (83%), Dog (88%)
Conjugation	Unconjugated
Epitope	Phospho Ser157
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

IHC (Immunohistochemistry)
AAA321643 at 1/100 staining human Skin cancer tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of Phospho-VASP (Ser157) expression in various lysates

WB (Western Blot)
Western blot analysis of VASP phosphorylation expression in PMA treated HeLa whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

IF (Immunofluorescence)
AAA321643 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-VASP antibody	Description: 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. 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, lamellipodial and filopodial dynamics, platelet activation and cell migration. VASP promotes actin filament elongation. It protects the barbed end of growing actin filaments against capping and increases the rate of actin polymerization in the presence of capping protein. VASP stimulates actin filament elongation by promoting the transfer of profilin-bound actin monomers onto the barbed end of growing actin filaments. Plays a role in actin-based mobility of Listeria monocytogenes in host cells. Regulates actin dynamics in platelets and plays an important role in regulating platelet aggregation. Subunit Structure: Homotetramer. Interacts with PFN1, PFN2, LPP, ACTN1 and ACTG1. Interacts, via the EVH1 domain, 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 (By similarity). Interacts weakly with MEFV. Post-translational Modifications: 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/PRKG1, 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. Phosphorylation at Thr-278 by AMPK does not require prior phosphorylation at Ser-157 or Ser-239. Phosphorylation at Ser-157 by PKA is required for localization to the tight junctions in epithelial cells. Phosphorylation modulates F-actin binding, actin filament elongation and platelet activation. Phosphorylation at Ser-322 by AMPK also alters actin filament binding. Carbon monoxide (CO) promotes phosphorylation at Ser-157, while nitric oxide (NO) promotes phosphorylation at Ser-157, but also at Ser-239. Response to NO and CO is blunted in platelets from diabetic patients, and VASP is not phosphorylated efficiently at Ser-157 and Ser-239. Similarity: 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.The WH1 domain mediates interaction with XIRP1. Belongs to the Ena/VASP family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507869
NCBI GeneID	7408
NCBI Accession #	NP_003361.1

NCBI GenBank Nucleotide #	NM_003370.3
UniProt Accession #	P50552; Q6PIZ1; Q93035; B2RBT9
Molecular Weight	Observed: 46 kDa Predicted: 40 kDa
NCBI Official Full Name	vasodilator-stimulated phosphoprotein
NCBI Official Synonym Full Names	vasodilator stimulated phosphoprotein
NCBI Official Symbol	VASP
NCBI Protein Information	vasodilator-stimulated phosphoprotein
UniProt Protein Name	Vasodilator-stimulated phosphoprotein
UniProt Gene Name	**VASP**
UniProt Synonym Gene Names	VASP

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: https://stage.aaabiotech.com/polyclonal/vasp-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/321643