abcam

Product datasheet

Anti-VASP antibody [OTI1H8] ab114029

4 Images

Overview

Product name	Anti-VASP antibody [OTI1H8]
Description	Mouse monoclonal [OTI1H8] to VASP
Host species	Mouse
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, ICC/IF
Species reactivity	**Reacts with:** Human, African green monkey
Immunogen	Recombinant full length protein corresponding to Human VASP aa 1 to the C-terminus. Produced in HEK-293T cells. NP_003361 Database link: **P50552** Run BLAST with Run BLAST with
Positive control	WB: HEK-293T cell lysate transfected with pCMV6-ENTRY VASP cDNA; HepG2, HeLa, MCF7, HT-29 and A549 cell extracts; ICC/IF: COS-7 cells transiently transfected by pCMV6-ENTRY VASP; Flow Cyt (Intra): HEK-293T cells transfected with pCMV6-ENTRY VASP overexpress plasmid.
General notes	The clone number has been updated from 1H8 to OTI1H8, both clone numbers name the same clone. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA, 50% Glycerol

Purity	Affinity purified
Purification notes	Purified from cell culture supernatant by affinity chromatography
Clonality	Monoclonal
Clone number	OTI1H8
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab114029 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/100. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB		1/500 - 1/2000. Predicted molecular weight: 40 kDa.
ICC/IF		1/100.

Target

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.

Tissue specificity Highly expressed in platelets.

Sequence similarities Belongs to the Ena/VASP family.
Contains 1 WH1 domain.

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.
The WH1 domain mediates interaction with XIRP1.

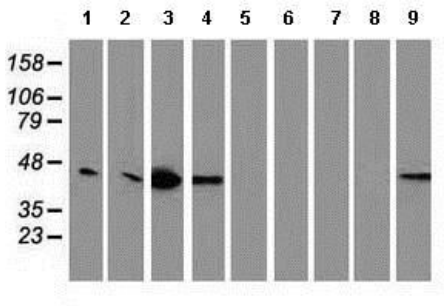
Post-translational modifications Major substrate for cAMP-dependent (PKA) and cGMP-dependent protein kinase (PKG) in platelets. The preferred site for PKA is Ser-157, the preferred site for PKG, Ser-239. In ADP-activated platelets, phosphorylation by PKA or PKG on Ser-157 leads to fibrinogen receptor 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 modulates F-actin binding, actin filament elongation and platelet activation. 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.

Cellular localization

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.

Images



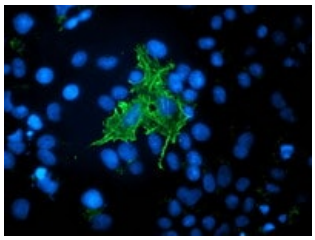
Western blot - Anti-VASP antibody [OTI1H8] (ab114029)

All lanes : Anti-VASP antibody [OTI1H8] (ab114029) at 1/500 dilution

Lane 1 : HepG2 (Human liver hepatocellular carcinoma cell line) cell extract
Lane 2 : HeLa (Human epithelial cell line from cervix adenocarcinoma) cell extract
Lane 3 : HT-29 (Human colorectal adenocarcinoma cell line) cell extract
Lane 4 : A549 (Human lung carcinoma cell line) cell extract
Lane 5 : COS-7 (African green monkey kidney fibroblast-like cell line) cell extract
Lane 6 : Jurkat (Human T cell leukemia cell line from peripheral blood) cell extract
Lane 7 : MDCK (Canine kidney cell line) cell extract
Lane 8 : PC-12 (Rat adrenal gland pheochromocytoma cell line) cell extract
Lane 9 : MCF7 (Human breast adenocarcinoma cell line) cell extract

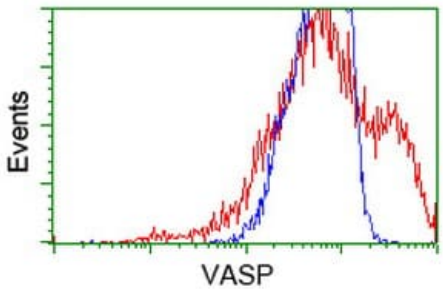
Lysates/proteins at 35 µg per lane.

Predicted band size: 40 kDa



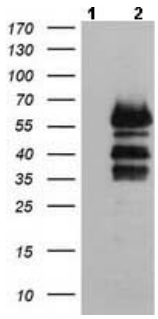
Immunocytochemistry/ Immunofluorescence - Anti-VASP antibody [OTI1H8] (ab114029)

ab114029 at 1/100 dilution staining VASP in COS-7 (African green monkey kidney fibroblast-like cell line) cells transiently transfected with pCMV6-ENTRY VASP by Immunofluorescence.



Flow Cytometry (Intracellular) - Anti-VASP antibody [OTI1H8] (ab114029)

ab114029 at 1/100 dilution staining VASP in HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) cells transfected with either pCMV6-ENTRY VASP overexpress plasmid (Red) or empty vector control plasmid (Blue) by Flow Cytometry (Intracellular).



Western blot - Anti-VASP antibody [OTI1H8] (ab114029)

All lanes : Anti-VASP antibody [OTI1H8] (ab114029) at 1/500 dilution

Lane 1 : HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) cell lysate transfected with pCMV6-ENTRY control cDNA
Lane 2 : HEK-293T cell lysate transfected with pCMV6-ENTRY VASP cDNA

Lysates/proteins at 5 µg per lane.

Predicted band size: 40 kDa

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