abcam

Product datasheet

# Anti-VASP antibody [EPR1337(2)] ab109321

重组 RabMAb

1 References 7 图像

## 概述

| | |
|---|---|
| **产品名称** | Anti-VASP抗体[EPR1337(2)] |
| **描述** | 兔单克隆抗体[EPR1337(2)] to VASP |
| **宿主** | Rabbit |
| **经测试应用** | **适用于:** WB, IP<br>**不适用于:** IHC-P |
| **种属反应性** | **与反应:** Human |
| **免疫原** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **阳性对照** | WB: HeLa, Jurkat, HEK293, 293T, HepG2, THP-1 and human platelet lysates. IP: HEK293 cell lysate. |
| **常规说明** | This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.<br><br>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information. |

## 性能

| | |
|---|---|
| **形式** | Liquid |
| **存放说明** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C. |
| **存储溶液** | pH: 7.20<br>Preservative: 0.01% Sodium azide<br>Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA |
| **纯度** | Protein A purified |

| | |
|---|---|
| **克隆** | 单克隆 |
| **克隆编号** | EPR1337(2) |
| **同种型** | IgG |

## 应用

**The Abpromise guarantee** **Abpromise™承诺保证使用**ab109321**于以下的**经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

| 应用 | Ab评论 | 说明 |
|---|---|---|
| **WB** | | 1/1000. Detects a band of approximately 46 kDa (predicted molecular weight: 40 kDa). **For unpurified use at 1/10000.** |
| **IP** | | 1/70. **For unpurified use at 1/10 - 1/100.** |

**应用说明** Is unsuitable for IHC-P.

## 靶标

**功能** 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.

**组织特异性** Highly expressed in platelets.

**序列相似性** Belongs to the Ena/VASP family.
Contains 1 WH1 domain.

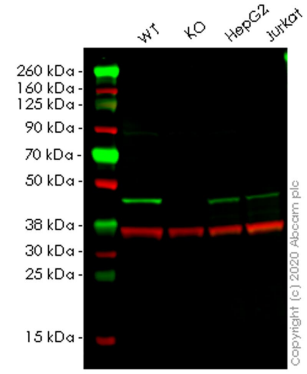
**结构域** The EVH2 domain is comprised of 3 regions. Block A is a thymosin-like domain required for G-actin binding. The KLKR motif within this block is essential for the G-actin binding and for actin polymerization. Block B is required for F-actin binding and subcellular location, and Block C for tetramerization.
The WH1 domain mediates interaction with XIRP1.

**翻译后修饰** 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.

**细胞定位**

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.

## 图片




Western blot - Anti-VASP antibody [EPR1337(2)] (ab109321)

**All lanes :** Anti-VASP antibody [EPR1337(2)] (ab109321) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
**Lane 2 :** VASP knockout HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
**Lane 3 :** HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate
**Lane 4 :** Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

Lysates/proteins at 20 µg per lane.

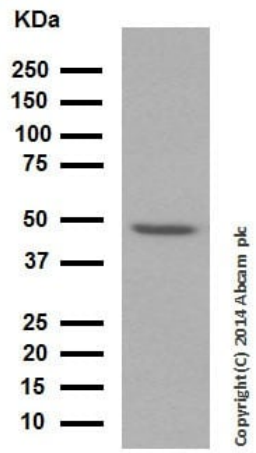
**Secondary**
**All lanes :** Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

**Predicted band size:** 40 kDa
**Observed band size:** 46 kDa

**Lanes 1-4:** Merged signal (red and green). Green - ab109321 observed at 46 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab109321 Anti-VASP antibody [EPR1337(2)] was shown to specifically react with VASP in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265892** (knockout cell lysate **ab257792**) was used. Wild-type and VASP knockout samples were subjected to SDS-PAGE. ab109321 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse

IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.




Western blot - Anti-VASP antibody [EPR1337(2)] (ab109321)

Anti-VASP antibody [EPR1337(2)] (ab109321) at 1/1000 dilution (purified) + HEK293 cell lysate at 20 µg

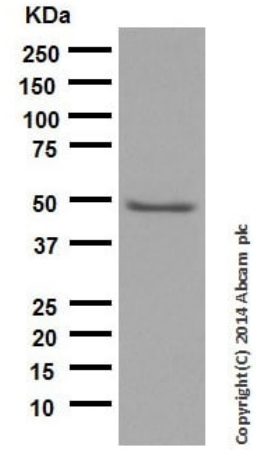
**Secondary**

Peroxidase-conjugated goat anti-rabbit IgG at 1/1000 dilution

**Predicted band size:** 40 kDa
**Observed band size:** 46 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.




Western blot - Anti-VASP antibody [EPR1337(2)] (ab109321)

Anti-VASP antibody [EPR1337(2)] (ab109321) at 1/1000 dilution (purified) + HepG2 cell lysate at 20 µg

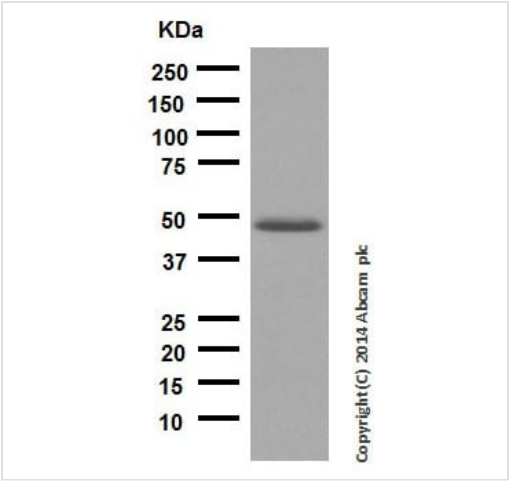
**Secondary**

Peroxidase-conjugated goat anti-rabbit IgG at 1/1000 dilution

**Predicted band size:** 40 kDa
**Observed band size:** 46 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.




Western blot - Anti-VASP antibody [EPR1337(2)] (ab109321)

Anti-VASP antibody [EPR1337(2)] (ab109321) at 1/5000 dilution (purified) + THP-1 cell lysate at 20 µg

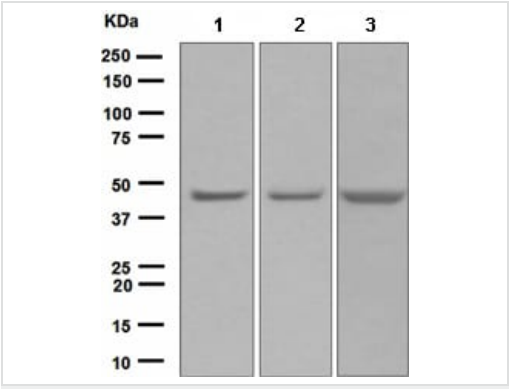
**Secondary**

Peroxidase-conjugated goat anti-rabbit IgG at 1/1000 dilution

**Predicted band size:** 40 kDa
**Observed band size:** 46 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



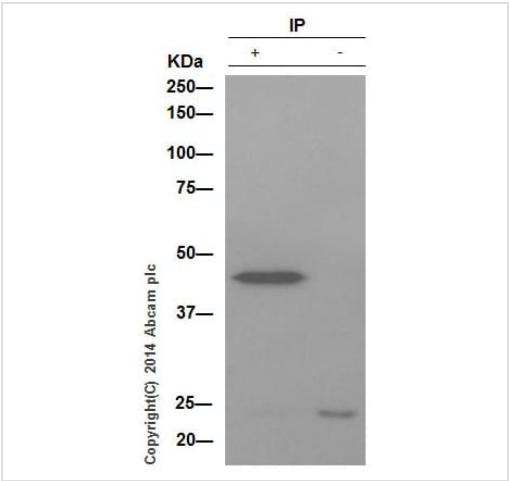

Western blot - Anti-VASP antibody [EPR1337(2)] (ab109321)

**All lanes :** Anti-VASP antibody [EPR1337(2)] (ab109321) at 1/10000 dilution (unpurified)

**Lane 1 :** 293T cell lysate
**Lane 2 :** HepG2 cell lysate
**Lane 3 :** Human platelet lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 40 kDa
**Observed band size:** 46 kDa




Immunoprecipitation - Anti-VASP antibody [EPR1337(2)] (ab109321)

ab109321 (purified) at 1/30 immunoprecipitating VASP in HEK293 cell lysate (Lane 1). Lane 2 - rabbit monoclonal IgG instead of ab109321 in HEK293 lysates. For western blotting, a peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/1500).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.


Anti-VASP antibody [EPR1337(2)] (ab109321)

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