

# Recombinant Human VASP protein ab105601

[1 References](#) [画像数 1](#)

### 製品の詳細

製品名	Recombinant Human VASP protein
精製度	> 85 % SDS-PAGE. ab105601 is purified using conventional chromatography techniques.
発現系	Escherichia coli
アクセッション番号	<b><u>P50552</u></b>
タンパク質長	Protein fragment
Animal free	No
由来	Recombinant
生物種	Human
配列	<b>MGSSHHHHH SSGLVPRGSH MSETVICSSR</b> ATVMLYDDGN KRWLPAGTGP QAFSRVQIYH NPTANSFRVV GRKMQPDQVQ VINCAIVRGV KYNQATPNFH QWRDARQVWG LNFGSKEDAA QFAAGMASAL EALEGGGPPP PPALPTWSVP NGPSPEEVEQ QKRQQGPSE HIERRVSNAG GPPAPPAGGP PPPPGPPPPP GPPPPPGLPP SGVPAAAHGA GGGPPPAPPL PAAQGPGGGG AGAPGLAAAI AGAKLRKVSK QEEASGGPTA PKAESGRSGG GGLMEEMNAM LARRRKATQV GEKTPKDESA NQEEPEARVP AQSESVRRPW EKNSTTLPRM KSSSVTTSE TQPCTPSSSD YSD
予測される分子量	38 kDa including tags
領域	1 to 343
タグ	His tag N-Terminus

### 特性

Our **Abpromise guarantee** covers the use of **ab105601** in the following tested applications.

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

アプリケーション	SDS-PAGE Mass Spectrometry
質量分析	MALDI-TOF

**製品の状態**

Liquid

**前処理および保存**

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**保存方法および安定性**

Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

pH: 8.00

Constituents: 0.00174% PMSF, 0.077% DTT, 0.316% Tris HCl, 10% Glycerol (glycerin, glycerine), 1.16% Sodium chloride

**関連情報**

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**機能**

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.

**組織特異性**

Highly expressed in platelets.

**配列類似性**

Belongs to the Ena/VASP family.

Contains 1 WH1 domain.

**ドメイン**

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.

**翻訳後修飾**

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.

**細胞内局在**

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.

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15% SDS-PAGE showing ab105601 (3 µg) at approximately 37.5 kDa.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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