abcam

Product datasheet

Recombinant Human VASP protein ab105601

1 References 1 图像

描述

产品名称	重组人VASP蛋白
纯度	> 85 % SDS-PAGE. ab105601 is purified using conventional chromatography techniques.
表达系统	Escherichia coli
Accession	**P50552**
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
序列	**MGSSHHHHHH SSGLVPRGSH** MSETVICSSR ATVMLYDDGN KRWLPAGTGP QAFSRVQIYH NPTANSFRVV GRKMQPDQQV VINCAIVRGV KYNQATPNFH QWRDARQVWG LNFGSKEDAA QFAAGMASAL EALEGGGPPP PPALPTWSVP NGPSPEEVEQ QKRQQPGPSE HIERRVSNAG GPPAPPAGGP PPPPGPPPPP GPPPPPGLPP SGVPAAAHGA GGGPPPAPPL PAAQGPGGGG AGAPGLAAAI AGAKLRKVSK QEEASGGPTA PKAESGRSGG GGLMEEMNAM LARRRKATQV GEKTPKDESA NQEEPEARVP AQSESVRRPW EKNSTTLPRM KSSSSVTTSE TQPCTPSSSD YSD
预测分子量	38 kDa including tags
氨基酸	1 to 343
标签	His tag N-Terminus

技术指标

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.

应用	SDS-PAGE Mass Spectrometry
质谱法	MALDI-TOF

形式	Liquid

制备和贮存

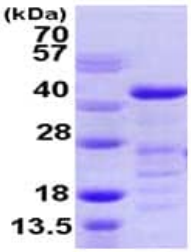
稳定性和存储	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. pH: 8.00 Constituents: 0.00174% PMSF, 0.077% DTT, 0.316% Tris HCl, 10% Glycerol (glycerin, glycerine), 1.16% Sodium chloride

常规信息

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.

阅让

图片



SDS-PAGE - Recombinant Human VASP protein (ab105601)

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

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