SANTA CRUZ BIOTECHNOLOGY, INC.

VASP (C-17): sc-1853

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Wiskott-Aldrich syndrome (WAS) is characterized by thrombocytopenia, eczema, defects in cell-mediated and humoral immunity, and a propensity for lymphoproliferative diseases. The syndrome is the result of a mutation in the gene encoding a proline-rich protein termed WASP. WASP has been identified as a downstream effector of Cdc42 and has been implicated in Actin polymerization and cytoskeletal organization. A distantly related protein, VASP (vasodilator-stimulated phosphoprotein), is involved in the maintenance of cytoarchitecture by interacting with Actin-like filaments. VASP shares a limited degree of homology with the amino-terminus of WASP, which is frequently mutated in WAS patients. An established substrate of cAMP and cGMP dependent kinases, VASP is phosphorylated on a regulatory serine residue 157 and localizes to focal adhesions, microfilaments and highly active regions of the plasma membrane. VASP is highly expressed in human platelets and, like WASP, may play a role in cytoskeletal organization.

REFERENCES

1. Reinhard, M., et al. 1992. The 46/50 kDa phosphoprotein VASP purified from human platelets is a novel protein associated with actin filaments and focal contacts. EMBO J. 11: 2063-2070.
2. Reinhard, M., et al. 1995. Identification, purification and characterization of a zyxin-related protein that binds the focal adhesion and microfilament protein VASP (vasodilator-stimulated phosphoprotein). Proc. Natl. Acad. Sci. USA 92: 7956-7960.

CHROMOSOMAL LOCATION

Genetic locus: VASP (human) mapping to 19q13.32; Vasp (mouse) mapping to 7 A3.

SOURCE

VASP (C-17) is available as either goat (sc-1853) or rabbit (sc-1853-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of VASP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1853 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

VASP (C-17) is recommended for detection of VASP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

VASP (C-17) is also recommended for detection of VASP in additional species, including canine and bovine.

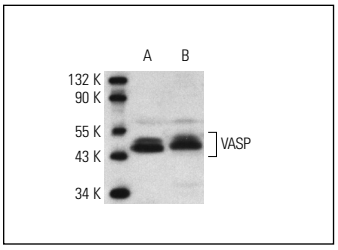
Suitable for use as control antibody for VASP siRNA (h): sc-29516, VASP siRNA (m): sc-36809, VASP shRNA Plasmid (h): sc-29516-SH, VASP shRNA Plasmid (m): sc-36809-SH, VASP shRNA (h) Lentiviral Particles: sc-29516-V and VASP shRNA (m) Lentiviral Particles: sc-36809-V.

Molecular Weight of VASP: 46 kDa.

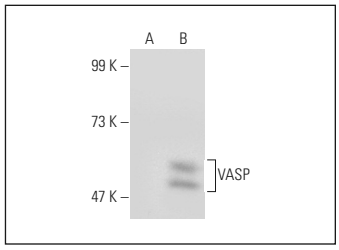
Molecular Weight of phosphorylated VASP: 50 kDa.

Positive Controls: A-10 cell lysate: sc-3806, VASP (m): 293T Lysate: sc-127758 or MDCK cell lysate: sc-2252.

DATA



VASP (C-17): sc-1853. Western blot analysis of VASP expression in MDCK (**A**) and A-10 (**B**) whole cell lysates.



VASP (C-17): sc-1853. Western blot analysis of VASP expression in non-transfected: sc-117752 (**A**) and mouse VASP transfected: sc-127758 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Schick, B., et al. 2003. Expression of VASP and zyxin in cochlear pillar cells: indication for actin-based dynamics? Cell Tissue Res. 311: 315-323.
2. Lee, N.P., et al. 2004. Zyxin, axin, and Wiskott-Aldrich syndrome protein are adaptors that link the cadherin/catenin protein complex to the cytoskeleton at adherens junctions in the seminiferous epithelium of the rat testis. J. Androl. 25: 200-215.
3. Bernusso, V.A., et al. 2015. Imatinib restores VASP activity and its interaction with Zyxin in Bcr-Abl leukemic cells. Biochim. Biophys. Acta 1853: 388-395.