

p-VASP (Ser 157): sc-101818

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. 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 also phosphorylated on Serine 239 by cGMP-dependent protein kinase.

REFERENCES

- 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.
- Butt, E., et al. 1994. cAMP- and cGMP-dependent protein kinase phosphorylation sites of the focal adhesion vasodilator-stimulated phosphoprotein (VASP) in vitro and in intact human platelets. *J. Biol. Chem.* 269: 14509-14517.
- 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.
- Remold-O'Donnell, E., et al. 1996. Defects in Wiskott-Aldrich syndrome blood cells. *Blood* 87: 2621-2631.
- Stewart, D.M., et al. 1996. Studies of the expression of the Wiskott-Aldrich syndrome protein. *J. Clin. Invest.* 97: 2627-2634.

CHROMOSOMAL LOCATION

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

SOURCE

p-VASP (Ser 157) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 157 phosphorylated VASP of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

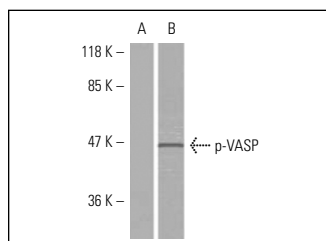
p-VASP (Ser 157) is recommended for detection of Ser 157 phosphorylated VASP of human origin, correspondingly phosphorylated Ser 153 of mouse origin and correspondingly phosphorylated Ser 154 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

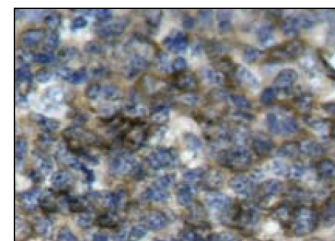
Molecular Weight of p-VASP: 50 kDa.

Positive Controls: NIH/3T3 + forskolin cell lysate: sc-24741 or human platelet lysate: sc-363773.

DATA



p-VASP (Ser 157): sc-101818. Western blot analysis of phosphorylated VASP expression in untreated (A) and forskolin-treated (B) NIH/3T3 whole cell lysates.



p-VASP (Ser 157): sc-101818. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil carcinoma tissue showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

- Li Calzi, S., et al. 2008. Carbon monoxide and nitric oxide mediate cytoskeletal reorganization in microvascular cells via vasodilator-stimulated phosphoprotein phosphorylation: evidence for blunted responsiveness in diabetes. *Diabetes* 57: 2488-2494.

PROTOCOLS

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



Try **p-VASP (F-3): sc-365564** or **p-VASP (A-7): sc-365563**, our highly recommended monoclonal alternatives to p-VASP (Ser 157).