

WAVE3 (E-17): sc-10398

BACKGROUND

WASP (for Wiskott-Aldrich syndrome protein) and N-WASP are downstream effectors of Cdc42 that are implicated in Actin polymerization and cytoskeletal organization. The WASP family also includes VASP (vasodilator-stimulated phosphoprotein) and Mena (for mammalian enabled protein), which accumulate at focal adhesions and are also involved in the regulation of the Actin cytoskeleton. The WAVE proteins are related to the WASP family proteins and are likewise involved in mediating Actin reorganization downstream of the Rho family of small GTPases. The protein homologs WAVE1 and WAVE2 regulate membrane ruffling by inducing the formation of Actin filament clusters in response to GTP binding and by activating Rac. They mediate Actin polymerization by cooperating with the Arp2/3 complex, thereby promoting the formation of Actin filaments. WAVE1, which is also designated SCAR (suppressor of cAR), is expressed primarily in the brain, while WAVE2 is widely expressed, with the expression highest in peripheral blood leukocytes. WAVE3 forms a multiprotein complex that links receptor kinases with Actin and plays a role in the transduction of signals involving changes in cell shape, function or motility.

REFERENCES

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2. Bear, J.E., Rawls, J.F. and Saxe, C.L. 3rd. 1998. SCAR, a WASP-related protein, isolated as a suppressor of receptor defects in late *Dictyostelium* development. *J. Cell Biol.* 142: 1325-1335.
3. Machesky, L.M. and Insall, R.H. 1998. SCAR1 and the related Wiskott-Aldrich syndrome protein, WASP, regulate the Actin cytoskeleton through the Arp2/3 complex. *Curr. Biol.* 8: 1347-1356.
4. Miki, H., Suetsugu, S. and Takenawa, T. 1998. WAVE, a novel WASP-family protein involved in Actin reorganization induced by Rac. *EMBO J.* 17: 6932-6941.
5. Suetsugu, S., Miki, H. and Takenawa, T. 1999. Identification of two human WAVE/SCAR homologues as general Actin regulatory molecules which associate with the Arp2/3 complex. *Biochem. Biophys. Res. Commun.* 260: 296-302.

CHROMOSOMAL LOCATION

Genetic locus: WASF3 (human) mapping to 13q12.13; Wasf3 (mouse) mapping to 5 G3.

SOURCE

WAVE3 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WAVE3 of human origin

STORAGE

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

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-10398 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

WAVE3 (E-17) is recommended for detection of WAVE3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

WAVE3 (E-17) is also recommended for detection of WAVE3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for WAVE3 siRNA (h): sc-44192, WAVE3 siRNA (m): sc-43499, WAVE3 shRNA Plasmid (h): sc-44192-SH, WAVE3 shRNA Plasmid (m): sc-43499-SH, WAVE3 shRNA (h) Lentiviral Particles: sc-44192-V and WAVE3 shRNA (m) Lentiviral Particles: sc-43499-V.

Molecular Weight of WAVE3: 60 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, SH-SY5Y cell lysate: sc-3812 or mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.


 MONOS
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Guaranteed

Try **WAVE3 (E-3): sc-515303** or **WAVE (F-10): sc-365165**, our highly recommended monoclonal alternatives to WAVE3 (E-17).