

WAVE1 (L-19): sc-10388

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.

CHROMOSOMAL LOCATION

Genetic locus: WASF1 (human) mapping to 6q21; Wasf1 (mouse) mapping to 10 B1.

SOURCE

WAVE1 (L-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of WAVE1 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-10388 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

WAVE1 (L-19) is recommended for detection of WAVE1 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).

WAVE1 (L-19) is also recommended for detection of WAVE1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for WAVE1 siRNA (h): sc-36831, WAVE1 siRNA (m): sc-36832, WAVE1 shRNA Plasmid (h): sc-36831-SH, WAVE1 shRNA Plasmid (m): sc-36832-SH, WAVE1 shRNA (h) Lentiviral Particles: sc-36831-V and WAVE1 shRNA (m) Lentiviral Particles: sc-36832-V.

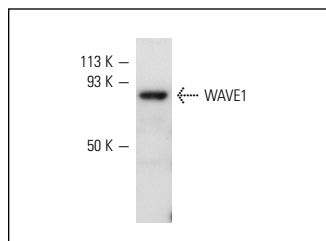
Molecular Weight of WAVE1: 84 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat brain extract: sc-2392.

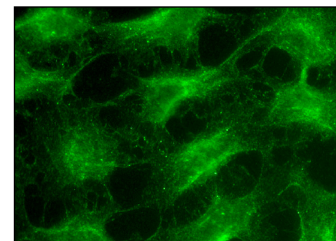
STORAGE

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

DATA



WAVE1 (L-19): sc-10388. Western blot analysis of WAVE1 expression in mouse brain extract.



WAVE1 (L-19): sc-10388. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal and membrane localization.

SELECT PRODUCT CITATIONS

1. Fernando, H.S., et al. 2007. Expression of the WASP verprolin-homologues (WAVE members) in human breast cancer. *Oncology* 73: 376-383.
2. Fernando, H.S., et al. 2008. WAVE1 is associated with invasiveness and growth of prostate cancer cells. *J. Urol.* 180: 1515-1521.
3. Kikuchi, K. and Takahashi, K. 2008. WAVE2- and microtubule-dependent formation of long protrusions and invasion of cancer cells cultured on three-dimensional extracellular matrices. *Cancer Sci.* 99: 2252-2259.
4. Jiang, W.G., et al. 2010. Expression of WAVEs, the WASP (Wiskott-Aldrich syndrome protein) family of verprolin homologous proteins in human wound tissues and the biological influence on human keratinocytes. *Wound Repair Regen.* 18: 594-604.

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
Satisfaction
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Try **WAVE1 (E-2): sc-271507** or **WAVE1 (B-8): sc-271506**, our highly recommended monoclonal alternatives to WAVE1 (L-19).