

WAVE2 (H-110): sc-33548

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 multi-protein 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: WASF2 (human) mapping to 1p36.11; Wasf2 (mouse) mapping to 4 D2.3.

SOURCE

WAVE2 (H-110) is a rabbit polyclonal antibody raised against amino acids 206-315 mapping within an internal region of WAVE2 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.

APPLICATIONS

WAVE2 (H-110) is recommended for detection of WAVE2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for WAVE2 siRNA (h): sc-36833, WAVE2 siRNA (m): sc-36834, WAVE2 shRNA Plasmid (h): sc-36833-SH, WAVE2 shRNA Plasmid (m): sc-36834-SH, WAVE2 shRNA (h) Lentiviral Particles: sc-36833-V and WAVE2 shRNA (m) Lentiviral Particles: sc-36834-V.

Molecular Weight of WAVE2: 84 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, AML-193 whole cell lysate: sc-364182 or CCRF-CEM cell lysate: sc-2225.

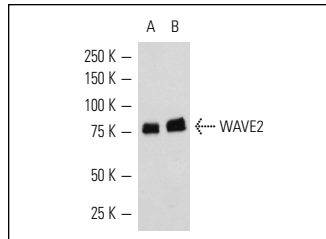
STORAGE

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

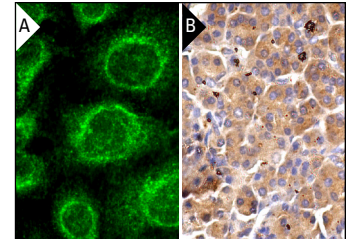
RESEARCH USE

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

DATA



WAVE2 (H-110): sc-33548. Western blot analysis of WAVE2 expression in MOLT-4 (A) and CCRF-CEM (B) whole cell lysates.



WAVE2 (H-110): sc-33548. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of glandular cells (B).

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. Miyamoto, Y., et al. 2008. Cdk5 phosphorylation of WAVE2 regulates oligodendrocyte precursor cell migration through nonreceptor tyrosine kinase Fyn. *J. Neurosci.* 28: 8326-8337.
3. 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.
4. Goh, W.I., et al. 2011. Rif-mDia1 interaction is involved in filopodium formation independent of Cdc42 and Rac effectors. *J. Biol. Chem.* 286: 13681-13694.
5. Yamashita, H., et al. 2011. WAVE2 forms a complex with PKA and is involved in PKA enhancement of membrane protrusions. *J. Biol. Chem.* 286: 3907-3914.
6. Goh, W.I., et al. 2012. mDia1 and WAVE2 proteins interact directly with IRSp53 in filopodia and are involved in filopodium formation. *J. Biol. Chem.* 287: 4702-4714.

PROTOCOLS

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


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Try **WAVE2 (C-6): sc-373889**, our highly recommended monoclonal alternative to WAVE2 (H-110).