

WAVE2 (C-14): sc-10394

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

SOURCE

WAVE2 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus 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.

Blocking peptide available for competition studies, sc-10394 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

WAVE2 (C-14) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

WAVE2 (C-14) is also recommended for detection of WAVE2 in additional species, including equine, canine, bovine and avian.

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.

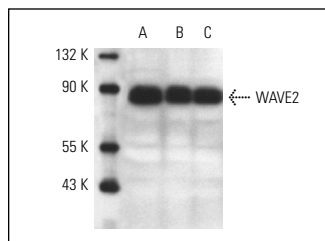
RESEARCH USE

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

STORAGE

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

DATA



WAVE2 (C-14): sc-10394. Western blot analysis of WAVE2 expression in MOLT-4 (A), AML-193 (B) and CCRF-CEM (C) whole cell lysates.

SELECT PRODUCT CITATIONS

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- Semba, S., et al. 2006. Coexpression of actin-related protein 2 and Wiskott-Aldrich syndrome family verproline-homologous protein 2 in adenocarcinoma of the lung. *Clin. Cancer Res.* 12: 2449-2454.
- El-Sibai, M., et al. 2007. Cdc42 is required for EGF-stimulated protrusion and motility in MTLn3 carcinoma cells. *J. Cell Sci.* 120: 3465-3474.
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- Miyamoto, Y., et al. 2008. Cdk5 phosphorylation of WAVE2 regulates oligodendrocyte precursor cell migration through nonreceptor tyrosine kinase Fyn. *J. Neurosci.* 28: 8326-8337.
- Escobar, B., et al. 2010. Brick1 is an essential regulator of actin cytoskeleton required for embryonic development and cell transformation. *Cancer Res.* 70: 9349-9359.
- Yokotsuka, M., et al. 2011. Overexpression of HER2 signaling to WAVE2-Arp2/3 complex activates MMP-independent migration in breast cancer. *Breast Cancer Res. Treat.* 126: 311-318.



Try **WAVE2 (C-6): sc-373889**, our highly recommended monoclonal alternative to WAVE2 (C-14).