

N-WASP (N-15): sc-10121

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. WASP and the related protein neural-WASP (or N-WASP) are downstream effectors of Cdc42. Both WASP and N-WASP are implicated in actin polymerization and cytoskeletal organization, and N-WASP is also essential for mediating the Cdc42-induced formation of filopodia. WASP is primarily expressed in haematopoietic cells, whereas N-WASP is richest in neural tissues and is also expressed ubiquitously. The effects of Cdc42-stimulated actin assembly require the interaction of WASP/N-WASP with the Arp2/3 complex, which dramatically enhances polymerization. The WASP/N-WASP proteins characteristically contain a Pleckstrin homology (PH) domain that binds phosphatidylinositol bisphosphate (PIP2), a Cdc42-binding domain, and a 70 amino acid conserved verprolin-homology domain (VPH domain), which is the actin-binding region and is critical to the regulation of the actin cytoskeleton.

CHROMOSOMAL LOCATION

Genetic locus: WASL (human) mapping to 7q31.32; Wasl (mouse) mapping to 6 A3.1.

SOURCE

N-WASP (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of N-WASP 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-10121 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

N-WASP (N-15) is recommended for detection of N-WASP 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).

N-WASP (N-15) is also recommended for detection of N-WASP in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for N-WASP siRNA (h): sc-36006, N-WASP siRNA (m): sc-36007, N-WASP shRNA Plasmid (h): sc-36006-SH, N-WASP shRNA Plasmid (m): sc-36007-SH, N-WASP shRNA (h) Lentiviral Particles: sc-36006-V and N-WASP shRNA (m) Lentiviral Particles: sc-36007-V.

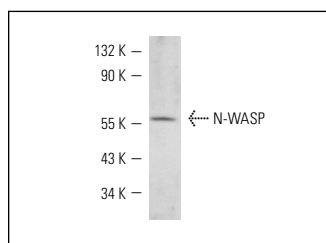
Molecular Weight of N-WASP: 65 kDa.

Positive Controls: rat brain extract: sc-2392, SK-N-SH cell lysate: sc-2410 or SH-SY5Y cell lysate: sc-3812.

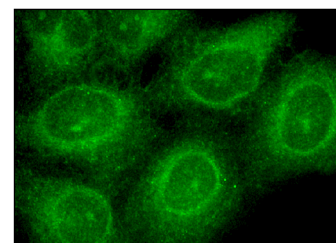
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



N-WASP (N-15): sc-10121. Western blot analysis of N-WASP expression in SH-SY5Y whole cell lysate.



N-WASP (N-15): sc-10121. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Zhang, W., et al. 2005. Activation of the Arp2/3 complex by N-WASP is required for actin polymerization and contraction in smooth muscle. *Am. J. Physiol., Cell Physiol.* 288: C1145-C1160.
2. Kempia, S.J., et al. 2005. A neural Wiskott-Aldrich syndrome protein-mediated pathway for localized activation of actin polymerization that is regulated by cortactin. *J. Biol. Chem.* 280: 5836-5842.

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **N-WASP (C-1): sc-271484** or **N-WASP (93-W): sc-100964**, our highly recommended monoclonal alternatives to N-WASP (N-15).