

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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#### SANTA CRUZ BIOTECHNOLOGY, INC.

## N-WASP (m): 293T Lysate: sc-121912



#### 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 hematopoietic 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 and N-WASP proteins characteristically contain a Pleckstrin homology (PH) domain, which binds phosphatidylinositol bisphosphate (PIP2); a Cdc42-binding domain; and a 70 amino acid conserved verprolin-homology (VPH) domain, which is the Actin-binding region and is critical to the regulation of the Actin cytoskeleton.

#### REFERENCES

- 1. Remold-O'Donnell, E., Rosen, F.S. and Kenney, D.M. 1996. Defects in Wiskott-Aldrich syndrome blood cells. Blood 87: 2621-2631.
- 2. Stewart, D.M., Treiber-Held, S., Kurman, C.C., Facchetti, F., Notarangelo, L.D. and Nelson, D.L. 1996. Studies of the expression of the Wiskott-Aldrich syndrome protein. J. Clin. Invest. 97: 2627-2634.
- 3. Symons, M., Derry, J.M., Karlak, B., Jiang, S., Lemahieu, V., McCormick, F., Francke, U. and Abo, A. 1996. Wiskott-Aldrich syndrome protein, a novel effector for the GTPase Cdc42Hs, is implicated in Actin polymerization. Cell 84: 723-734.
- 4. Miki, H., Miura, K. and Takenawa, T. 1996, N-WASP, a novel Actin-depolymerizing protein, regulates the cortical cytoskeletal rearrangement in a PIP2-dependent manner downstream of tyrosine kinases. EMBO J. 15: 5326-5335.
- 5. Miki, H., Sasaki, T., Takai, Y. and Takenawa, T. 1998. Induction of filopodium formation by a WASP-related Actin-depolymerizing protein N-WASP. Nature 391: 93-96.
- 6. Miki, H. and Takenawa, T. 1998. Direct binding of the verprolin-homology domain in N-WASP to Actin is essential for cytoskeletal reorganization. Biochem. Biophys. Res. Commun. 243: 73-78.
- 7. Rohatgi, R., Ma, L., Miki, H., Lopez, M., Kirchhausen, T., Takenawa, T. and Kirschner, M.W. 1999. The interaction between N-WASP and the Arp2/3 complex links Cdc42-dependent signals to Actin assembly. Cell 97: 221-231.

#### **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

#### PROTOCOLS

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

#### CHROMOSOMAL LOCATION

Genetic locus: Wasl (mouse) mapping to 6 A3.1.

#### PRODUCT

N-WASP (m): 293T Lysate represents a lysate of mouse N-WASP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

#### **APPLICATIONS**

N-WASP (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive N-WASP antibodies. Recommended use: 10-20 µl per lane.

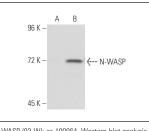
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

N-WASP (93-W): sc-100964 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse N-WASP expression in N-WASP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgGk BP-HRP: sc-516102 or m-lgGk BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

#### DATA



N-WASP (93-W): sc-100964. Western blot analysis of N-WASP expression in non-transfected: sc-117752 (A and mouse N-WASP transfected: sc-121912 (B) 293T whole cell lysates

#### **RESEARCH USE**

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