

## Nck. Mouse Monoclonal Antibody NC-20 , Human

### BACKGROUND

Recognizes a 47kDa protein (total aa 377), identified as Nck. It is a highly conserved protein that has one SH2 and three SH3 domains. Nck is an oncogenic protein and a common target for the action of different surface receptors. Nck is phosphorylated on tyrosine, serine, and threonine residues in response to stimulation by EGF and PDGF. Nck functions as an adaptor protein which links surface receptors with tyrosine kinase activity to downstream signalling pathways involved in the control of cell proliferation. The recombinant Nck precipitates endogenous WIP, a novel proline-rich protein that interacts with the Wiskott-Aldrich syndrome protein (WASP), from BJAB cell lysates. Nck binds through its second SH3 domain to WIP, and Nck binds to WIP at a site (amino acids 321-415) that differs from the WASP-binding site (amino acids 416-488). WIP has been shown to associate with the actin polymerization regulatory protein profilin and to induce actin polymerization and cytoskeletal reorganization in lymphoid cells.

### ORDERING INFORMATION

**CATALOG NUMBER**  
X1416M

**SIZE**  
100 µg

**FORM**  
Unconjugated

**HOST/CLONE**  
Mouse Clone NC-20

**FORMULATION**  
Provided as solution in phosphate buffered saline with 0.08% sodium azide

**CONCENTRATION**  
1 mg/ml

**ISOTYPE**  
IgG1

**APPLICATIONS**  
Western Blot, Immunoprecipitation

### IMMUNOGEN

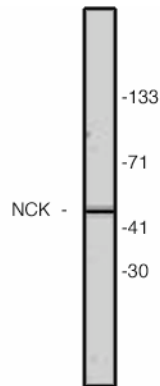
Hybridoma produced by the fusion of splenocytes from BALB/c mice immunized with recombinant human Nck protein and mouse myeloma NS1 cells.

### SPECIES REACTIVITY

Human

### Legend:

Western blot with NIH3T3 cell lysate and Exalpha's anti-NCK antibody.



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**POSITIVE CONTROL/TISSUE EXPRESSION**

NIH3T3 or A431 cells, kidney

**COMMENTS**

This antibody can be used for immunoprecipitation (2  $\mu$ g/mg of protein lysate) or Western blotting (2  $\mu$ g/ml). Optimal concentration should be evaluated by serial dilutions.

**SHIP CONDITIONS**

Ship at ambient temperature, freeze upon arrival

**STORAGE CUSTOMER**

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

**STABILITY**

Products are stable for one year from purchase when stored properly

**REFERENCES**

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3. Galisteo ML, et al: The adaptor protein Nck links receptor tyrosine kinases with the serine-threonine kinase Pak1. J Biol Chem 1996 Aug 30;271(35):20997-21000.
4. Cussac D, et al: A Sos-derived peptidimer blocks the Ras signaling pathway by binding both Grb2 SH3 domains and displays antiproliferative activity. FASEB J. 1999; 13: 31-38.
5. Anton IM, et al: The Wiskott-Aldrich syndrome protein-interacting protein (WIP) binds to the adaptor protein Nck. J Biol Chem 1998 Aug 14;273(33):20992-20995.
6. Matuoka K, Takenawa T: Downregulated expression of the signaling molecules Nck, c-Crk, Grb2/Ash, PI 3-kinase p110 alpha and WRN during fibroblast aging in vitro. Biochim Biophys Acta 1998 Feb 4;1401(2):211-215.
7. Rockow S, et al: Nck inhibits NGF and basic FGF induced PC12 cell differentiation via mitogen-activated protein kinase-independent pathway. Oncogene 1996 Jun 6;12(11):2351-2359.
8. Bocciardi R, et al: The multiple endocrine neoplasia type 2B point mutation switches the specificity of the Ret tyrosine kinase towards cellular substrates that are susceptible to interact with Crk and Nck. Oncogene 1997 Nov 6;15(19):2257-2265.

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