

NCK1/2 (H-300): sc-50365

BACKGROUND

The NCK family of SH2/SH3 adaptor proteins consists of two members, NCK1 (NCK α) and NCK2 (NCK β), which couple tyrosine kinase signaling, including the EGF and PDGF receptor-pathways, to downstream signaling proteins. Specifically, overexpression of NCK1 in NIH/3T3 cells decreases DNA synthesis stimulated by EGF. Furthermore, the SH2 domain of NCK2 inhibits EGF- and PDGF-induced DNA synthesis. The SH3 domain of NCK binds a proline-rich domain on PAK, a known Actin cytoskeleton regulator. The NCK protein thus mediates the interaction between PAK and RAC. The NCK2 protein binds human PDGFR- β (Tyr 1009). Overexpression of NCK2 inhibits PDGF-induced membrane ruffling and lamellipod formation. Various growth factor receptors, cell surface antigens and adhesion molecules phosphorylate mammalian NCK1 and NCK2. The human NCK1 and NCK2 genes map to chromosomes 3q22.3 and 2q12.2, respectively.

REFERENCES

1. Park, D. and Rhee, S.G. 1992. Phosphorylation of NCK in response to a variety of receptors, phorbol myristate acetate and cyclic AMP. *Mol. Cell. Biol.* 12: 5816-5823.
2. Huebner, K., et.al. 1994. Chromosome locations of genes encoding human signal transduction adapter proteins, NCK, SHC1 and GRB2. *Genomics* 22: 281-287.

CHROMOSOMAL LOCATION

Genetic locus: NCK1 (human) mapping to 3q22.3, NCK2 (human) mapping to 2q12.2; Nck1 (mouse) mapping to 9 E3.3, Nck2 (mouse) mapping to 1 B.

SOURCE

NCK1/2 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of NCK1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NCK1/2 (H-300) is recommended for detection of NCK1 and NCK2 isoform B, and to a lesser extent, NCK2 isoform A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

NCK1/2 (H-300) is also recommended for detection of NCK1 and NCK2 isoform B, and to a lesser extent, NCK2 isoform A in additional species, including equine, canine, bovine and porcine.

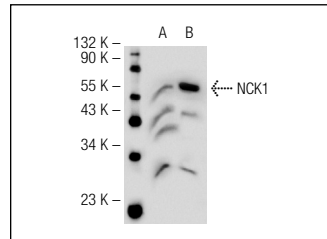
Molecular Weight of NCK1/2: 47 kDa.

Positive Controls: NCK1 (h2): 293T Lysate: sc-177604, NCK1 (m): 293T Lysate: sc-121953 or A-431 whole cell lysate: sc-2201.

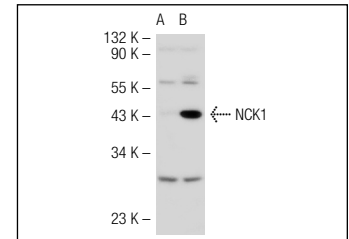
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NCK1/2 (H-300): sc-50365. Western blot analysis of NCK1 expression in non-transfected: sc-117752 (A) and human NCK1 transfected: sc-177604 (B) 293T whole cell lysates.



NCK1/2 (H-300): sc-50365. Western blot analysis of NCK1 expression in non-transfected: sc-117752 (A) and mouse NCK1 transfected: sc-121953 (B) 293T whole cell lysates.

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 **NCK1 (20B.1H9): sc-20026** or **NCK1/2 (G-3): sc-365802**, our highly recommended monoclonal alternatives to NCK1/2 (H-300).