

# NOK (P-14): sc-109343

## BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. NOK (Novel oncogene with kinase domain), also known as STYK1 (serine/threonine/tyrosine kinase 1), is a 422 amino acid single-pass membrane protein that belongs to the protein kinase superfamily. Highly expressed in brain, prostate and placenta with lower levels of expression in non-cancerous lung tissue, NOK functions as a receptor protein tyrosine kinase that influences cell proliferation, differentiation and survival. NOK contains one protein kinase domain and is overexpressed in ovarian cancer, cervical cancer and chronic myelogenous leukemia, suggesting an important role for NOK in tumorigenesis.

## REFERENCES

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3. Liu, L., Yu, X.Z., Li, T.S., Song, L.X., Chen, P.L., Suo, T.L., Li, Y.H., Wang, S.D., Chen, Y., Ren, Y.M., Zhang, S.P., Chang, Z.J. and Fu, X.Y. 2004. A novel protein tyrosine kinase NOK that shares homology with platelet-derived growth factor/fibroblast growth factor receptors induces tumorigenesis and metastasis in nude mice. *Cancer Res.* 64: 3491-3499.
4. Moriai, R., Kobayashi, D., Amachika, T., Tsuji, N. and Watanabe, N. 2006. Diagnostic relevance of overexpressed NOK mRNA in breast cancer. *Anti-cancer Res.* 26: 4969-4973.
5. Amachika, T., Kobayashi, D., Moriai, R., Tsuji, N. and Watanabe, N. 2007. Diagnostic relevance of overexpressed mRNA of novel oncogene with kinase-domain (NOK) in lung cancers. *Lung Cancer* 56: 337-340.

## CHROMOSOMAL LOCATION

Genetic locus: STYK1 (human) mapping to 12p13.2; Styk1 (mouse) mapping to 6 F3.

## SOURCE

NOK (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NOK 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-109343 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NOK (P-14) is recommended for detection of NOK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for NOK siRNA (h): sc-95937, NOK siRNA (m): sc-150020, NOK shRNA Plasmid (h): sc-95937-SH, NOK shRNA Plasmid (m): sc-150020-SH, NOK shRNA (h) Lentiviral Particles: sc-95937-V and NOK shRNA (m) Lentiviral Particles: sc-150020-V.

Molecular Weight of NOK: 48 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **NOK (2H2F10): sc-81701**, our highly recommended monoclonal alternative to NOK (P-14).