

# Ros (M-19): sc-6348

## BACKGROUND

LTK, ALK and Ros have been identified as receptor tyrosine kinases having sequence similarity to the Insulin receptor subfamily of kinases. LTK, leukocyte tyrosine kinase, is expressed in murine B lymphocyte precursors and has also been found in forebrain neurons. ALK, anaplastic lymphoma kinase, is normally highly expressed specifically in the nervous system. A truncated form containing the catalytic domain of ALK is expressed as the result of a translocation occurring in many non-Hodgkin's lymphomas. The c-Ros gene was originally identified in mutant form as an oncogene. Ros is normally expressed in a small number of epithelial cell types and may play a role in epithelial development.

## REFERENCES

- Birchmeier, C., et al. 1990. Characterization of Ros1 cDNA from a human glioblastoma cell line. *Proc. Natl. Acad. Sci. USA* 87: 4799-4803.
- Haase, V.H., et al. 1991. Alternatively spliced LTK mRNA in neurons predicts a receptor with a larger putative extracellular domain. *Oncogene* 6: 2319-2325.
- Morris, S.W., et al. 1994. Fusion of a kinase gene, ALK, to a nucleolar protein gene, NPM, in non-Hodgkin's lymphoma. *Science* 263: 1281-1284.
- Kanwar, Y.S., et al. 1995. Cloning of mouse c-Ros renal cDNA, its role in development and relationship to extracellular matrix glycoproteins. *Kidney Int.* 48: 1646-1659.
- Sonnenberg-Riethmacher, E., et al. 1996. The c-Ros tyrosine kinase receptor controls regionalization and differentiation of epithelial cells in the epidermis. *Genes Dev.* 10: 1184-1193.
- Ueno, H., et al. 1996. Growth and survival signals transmitted via two distinct NPXY motifs within leukocyte tyrosine kinase, an Insulin receptor-related tyrosine kinase. *J. Biol. Chem.* 271: 27707-27714.
- Iwahara, T., et al. 1997. Molecular characterization of ALK, a receptor tyrosine kinase expressed specifically in the nervous system. *Oncogene* 14: 439-449.

## CHROMOSOMAL LOCATION

Genetic locus: ROS1 (human) mapping to 6q22; Ros1 (mouse) mapping to 10 B3.

## SOURCE

Ros (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Ros of rat 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-6348 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Ros (M-19) is recommended for detection of Ros of mouse and rat 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 Ros siRNA (m): sc-40088, Ros shRNA Plasmid (m): sc-40088-SH and Ros shRNA (m) Lentiviral Particles: sc-40088-V.

## 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.

## SELECT PRODUCT CITATIONS

- Fisher, C.E., et al. 2001. Erk MAP kinase regulates branching morphogenesis in the developing mouse kidney. *Development* 128: 4329-4338.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.