Ros (H-300): sc-28974

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BIOTECHNOLOGY

The Power to Question

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 domian of ALK is expressed as the result of a translocation occuring 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

1. Birchmeier, C., et al. 1990. Characterization of ROS1 cDNA from a human glioblastoma cell line. Proc. Natl. Acad. Sci. USA 87: 4799-4803.

2. 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.

3. 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.

4. Kanwar, Y.S., et al. 1995. Cloning of mouse c-Ros renal cDNA, its role in development a relationship to extracellular matrix glycoproteins. Kidney Int. 48: 1646-1659.

5. Sonnenberg-Riethmacher, E., et al. 1996. The c-Ros tyrosine kinase receptor controls regionalization and differentiation of epithelial cells in the epididymis. Genes Dev. 10: 1184-1193.

6. 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.

7. 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 6q22.1; Ros1 (mouse) mapping to 10 B3.

SOURCE

Ros (H-300) is a rabbit polyclonal antibody raised against amino acids 31-330 mapping within an N-terminal extracellular domain of Ros 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.

STORAGE

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

APPLICATIONS

Ros (H-300) is recommended for detection of Ros of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Ros (H-300) is also recommended for detection of Ros in additional species, including equine and canine.

Suitable for use as control antibody for Ros siRNA (h): sc-40087, Ros siRNA (m): sc-40088, Ros shRNA Plasmid (h): sc-40087-SH, Ros shRNA Plasmid (m): sc-40088-SH, Ros shRNA (h) Lentiviral Particles: sc-40087-V 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 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.

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.