SANTA CRUZ BIOTECHNOLOGY, INC.

ALK (H-260): sc-25447

SANTA CRUZ 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 domain 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: ALK (human) mapping to 2p23.2; Alk (mouse) mapping to 17 E1.3.

SOURCE

ALK (H-260) is a rabbit polyclonal antibody raised against amino acids 21-280 mapping within an extracellular domain of ALK 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

ALK (H-260) is recommended for detection of ALK 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).

ALK (H-260) is also recommended for detection of ALK in additional species, including bovine.

Suitable for use as control antibody for ALK siRNA (h): sc-40083, ALK siRNA (m): sc-40084, ALK shRNA Plasmid (h): sc-40083-SH, ALK shRNA Plasmid (m): sc-40084-SH, ALK shRNA (h) Lentiviral Particles: sc-40083-V and ALK shRNA (m) Lentiviral Particles: sc-40084-V.

Molecular Weight of ALK precursor: 176 kDa.

Molecular Weight of B23-ALK fusion protein: 80 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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.

SELECT PRODUCT CITATIONS

1. Wilson, T.R., et al. 2012. Widespread potential for growth-factor-driven resistance to anticancer kinase inhibitors. Nature 487: 505-509.

RESEARCH USE

This antibody is covered under U.S. Patent No. 6,696,548 and is 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.