SANTA CRUZ BIOTECHNOLOGY, INC.

Mina53 (L-16): sc-74973

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The Power to Question

BACKGROUND

Mina53, also known as MINA (Myc induced nuclear antigen), MDIG or NO52, is a 465 amino acid protein that contains one JmjC domain and localizes to the nucleus. Expressed in placenta, liver, heart, pancreas and skeletal muscle, Mina53 is thought to be involved in ribosome biogenesis, specifically in the assembly of pre-ribosomal particles. Via its involvement in ribosome biogenesis, Mina53 may play an important role in cell growth and survival, as well as overall cellular proliferation events. Mina53 expression is upregulated in esophageal squamous cell carcinoma (ESCC), colon cancer and lung cancer tissues, suggesting that Mina53 may be involved in tumorigenesis. Multiple isoforms of Mina53 exist due to alternative splicing events.

REFERENCES

1. Tsuneoka, M., et al. 2002. A novel Myc target gene, Mina53, that is involved in cell proliferation. J. Biol. Chem. 277: 35450-35459.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 612049. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Teye, K., et al. 2004. Increased expression of a Myc target gene Mina53 in human colon cancer. Am. J. Pathol. 164: 205-216.
4. Tsuneoka, M., et al. 2004. Mina53 as a potential prognostic factor for esophageal squamous cell carcinoma. Clin. Cancer Res. 10: 7347-7356.
5. Eilbracht, J., et al. 2005. Protein NO52—a constitutive nucleolar component sharing high sequence homologies to protein NO66. Eur. J. Cell Biol. 84: 279-294.
6. Zhang, Y., et al. 2005. The human mineral dust-induced gene, MDIG, is a cell growth regulating gene associated with lung cancer. Oncogene 24: 4873-4882.
7. Teye, K., et al. 2007. Expression of Myc target gene Mina53 in subtypes of human lymphoma. Oncol. Rep. 18: 841-848.
8. Ishizaki, H., et al. 2007. Overexpression of the myc target gene Mina53 in advanced renal cell carcinoma. Pathol. Int. 57: 672-680.

CHROMOSOMAL LOCATION

Genetic locus: MINA (human) mapping to 3q11.2; Mina (mouse) mapping to 16 C1.3.

SOURCE

Mina53 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Mina53 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-74973 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-74973 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Mina53 (L-16) is recommended for detection of Mina53 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).

Mina53 (L-16) is also recommended for detection of Mina53 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Mina53 siRNA (h): sc-75788, Mina53 siRNA (m): sc-75789, Mina53 shRNA Plasmid (h): sc-75788-SH, Mina53 shRNA Plasmid (m): sc-75789-SH, Mina53 shRNA (h) Lentiviral Particles: sc-75788-V and Mina53 shRNA (m) Lentiviral Particles: sc-75789-V.

Mina53 (L-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Mina53: 53 kDa.

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 or our catalog for detailed protocols and support products.