MKX (K-14): sc-104994



The Power to Question

BACKGROUND

MKX (homeobox protein mohawk) is a 352 amino acid nuclear protein that may act as a morphogenetic regulator of cell adhesion. Belonging to the TALE/IRO homeobox family, MKX contains one homeobox DNA-binding domain. The gene encoding MKX maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

- 1. Alimova-Kost, M.V., et al. 1998. Assignment1 of phosphotriesteraserelated gene (PTER) to human chromosome band 10p12 by *in situ* hybridization. Cytogenet. Cell Genet. 83: 16-17.
- 2. Berger, P., et al. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. Neurogenetics 4: 1-15.
- 3. Nonneman, D., et al. 2004. Comparative mapping of human chromosome 10 to pig chromosomes 10 and 14. Anim. Genet. 35: 338-343.
- 4. Deloukas, P., et al. 2004. The DNA sequence and comparative analysis of human chromosome 10. Nature 429: 375-381.
- 5. Chen, L., et al. 2005. Roles of FGF signaling in skeletal development and human genetic diseases. Front. Biosci. 10: 1961-1976.
- Mukherjee, K., et al. 2007. Comprehensive analysis of animal TALE homeobox genes: new conserved motifs and cases of accelerated evolution. J. Mol. Evol. 65: 137-153.
- Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. Am. J. Surg. Pathol. 32: 1258-1264.
- Jugessur, A., et al. 2009. Genetic determinants of facial clefting: analysis of 357 candidate genes using two national cleft studies from Scandinavia. PLoS ONE 4: e5385.

CHROMOSOMAL LOCATION

Genetic locus: MKX (human) mapping to 10p12.1; Mkx (mouse) mapping to 18 A1.

SOURCE

MKX (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MKX of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104994 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-104994 X, 200 μ g/0.1 ml.

APPLICATIONS

MKX (K-14) is recommended for detection of MKX of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for MKX siRNA (h): sc-90526, MKX siRNA (m): sc-149461, MKX shRNA Plasmid (h): sc-90526-SH, MKX shRNA Plasmid (m): sc-149461-SH, MKX shRNA (h) Lentiviral Particles: sc-90526-V and MKX shRNA (m) Lentiviral Particles: sc-149461-V.

MKX (K-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

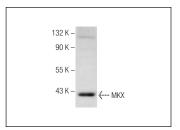
Molecular Weight of MKX: 39 kDa.

Positive Controls: NCI-H460 whole cell lysate.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



MKX (K-14): sc-104994. Western blot analysis of MKX expression in NCI-H460 whole cell lysate.

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.