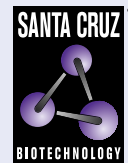


MKX (C-5): sc-515878



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, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

CHROMOSOMAL LOCATION

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

SOURCE

MKX (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 196-215 within an internal region of MKX of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain 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-515878 X, 200 µg/0.1 ml.

MKX (C-5) is available conjugated to agarose (sc-515878 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515878 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515878 PE), fluorescein (sc-515878 FITC), Alexa Fluor® 488 (sc-515878 AF488), Alexa Fluor® 546 (sc-515878 AF546), Alexa Fluor® 594 (sc-515878 AF594) or Alexa Fluor® 647 (sc-515878 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515878 AF680) or Alexa Fluor® 790 (sc-515878 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MKX (C-5) is recommended for detection of MKX of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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 (C-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

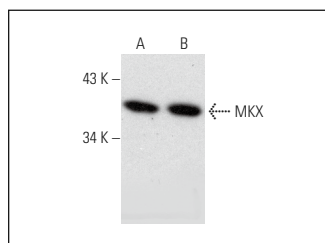
Molecular Weight of MKX: 39 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, NCI-H460 whole cell lysate: sc-364235 or CCD-1064Sk cell lysate: sc-2263.

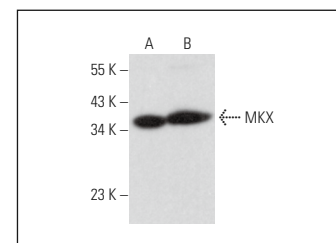
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MKX (C-5): sc-515878. Western blot analysis of MKX expression in NCI-H460 (A) and CCD-1064Sk (B) whole cell lysates.



MKX (C-5): sc-515878. Western blot analysis of MKX expression in NIH/3T3 (A) and HeLa (B) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Yao, Z., et al. 2021. MicroRNA engineered umbilical cord stem cell-derived exosomes direct tendon regeneration by mTOR signaling. *J. Nanobiotechnology* 19: 169.
2. Yao, Z., et al. 2022. Biomimetic multilayer polycaprolactone/sodium alginate hydrogel scaffolds loaded with melatonin facilitate tendon regeneration. *Carbohydr. Polym.* 277: 118865.
3. He, Y., et al. 2024. Pharmacological modulation of gp130 signalling enhances Achilles tendon repair by regulating tenocyte migration and collagen synthesis via SHP2-mediated crosstalk of the ERK/AKT pathway. *Biochem. Pharmacol.* 226: 116370.
4. Nagel, S., et al. 2024. IRX-related homeobox gene MKX is a novel oncogene in acute myeloid leukemia. *PLoS ONE* 19: e0315196.

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 for detailed protocols and support products.

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