

Mlx (N-17): sc-14705

BACKGROUND

Max is a nuclear localized bHLH-Zip protein that forms homodimers or heterodimers with Myc family members, including Myc, Mad 1, Mad 3, Mad 4, Mxi1 and Mnt (or Rox). These dimers bind to the E-box sequence CACGTG in order to regulate cell growth, proliferation and apoptosis. Mlx (Max-like protein X) is a bHLH-Zip protein that is structurally and functionally related to Max. Like Max, Mlx is broadly expressed in many tissues and has a long half-life. Mlx also forms homodimers or heterodimers with members of the Myc family, specifically Mad 1, Mad 4 and Rox, and members of the MondoA family, to repress or activate transcription from CACGTG E-boxes. MondoA forms weak homodimers and preferentially forms heterodimers with Mlx. The MondoA/Mlx complex is primarily localized to the cytoplasm, but will translocate to the nucleus in response to leptomycin B. Mlx can also dimerize with WBSCR14, a protein involved in Williams-Beuren syndrome (WBS), to repress E-box transcription, which provides further evidence that Mlx is a critical element in a transcription factor network.

CHROMOSOMAL LOCATION

Genetic locus: MLX (human) mapping to 17q21.2; Mlx (mouse) mapping to 11 D.

SOURCE

Mlx (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Mlx 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.

Blocking peptide available for competition studies, sc-14705 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Mlx (N-17) is recommended for detection of Max-like bHLH-Zip protein Mlx 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).

Mlx (N-17) is also recommended for detection of Max-like bHLH-Zip protein Mlx in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Mlx siRNA (h): sc-38081, Mlx siRNA (m): sc-38082, Mlx shRNA Plasmid (h): sc-38081-SH, Mlx shRNA Plasmid (m): sc-38082-SH, Mlx shRNA (h) Lentiviral Particles: sc-38081-V and Mlx shRNA (m) Lentiviral Particles: sc-38082-V.

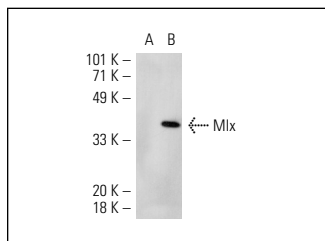
Molecular Weight of Mlx: 30 kDa.

Positive Controls: Mlx (h): 293 Lysate: sc-111152.

STORAGE

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

DATA



Mlx (N-17): sc-14705. Western blot analysis of Mlx expression in non-transfected: sc-110760 (A) and human Mlx transfected: sc-111152 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

- Xu, J., et al. 2006. Regulation of rat hepatic L-pyruvate kinase promoter composition and activity by glucose, n-3 polyunsaturated fatty acids, and peroxisome proliferator-activated receptor- α agonist. *J. Biol. Chem.* 281: 18351-18362.
- Wang, Y., et al. 2006. Regulation of hepatic fatty acid elongase and desaturase expression in diabetes and obesity. *J. Lipid Res.* 47: 2028-2041.
- Wang, Y., et al. 2008. Elevated hepatic fatty acid elongase-5 activity affects multiple pathways controlling hepatic lipid and carbohydrate composition. *J. Lipid Res.* 49: 1538-1552.
- Cha-Molstad, H., et al. 2009. Glucose-stimulated expression of TXNIP is mediated by CHREBP, p300 and Histone H4 acetylation in pancreatic β cells. *J. Biol. Chem.* 284: 16898-16905.
- Pedersen, K.B., et al. 2010. Glucose induces expression of rat pyruvate carboxylase through a carbohydrate response element in the distal gene promoter. *Biochem. J.* 426: 159-170.

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.



Try **Mlx (F-12): sc-393086**, our highly recommended monoclonal alternative to Mlx (N-17).