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MLX (D8G6W) Rabbit mAb

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orders@cellsignal.comEntrez-Gene ID #6945
UniProt ID #Q9UHQ2

rev. 04/11/18

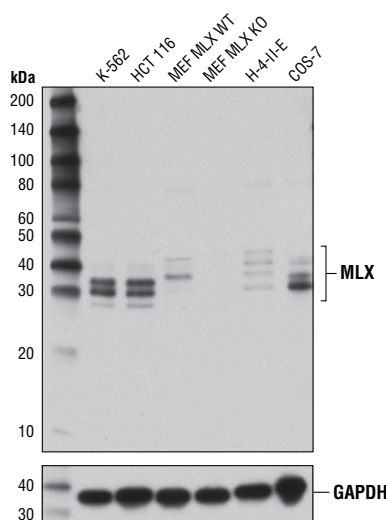
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Applications
W, ChIP, IPSpecies Cross-Reactivity*
H, M, R, MkMolecular Wt.
30 to 50 kDaIsotype
Rabbit IgG**

Background: Max-like protein X (MLX), also known as transcription factor-like protein 4 (TCFL4), is a member of the Myc/Max/Mad network of transcriptional regulator proteins that share a common basic-helix-loop-helix zipper (bHLH-ZIP) motif required for dimerization and DNA-binding (1,2). MLX is ubiquitously expressed in most cell lines and functions as a binding partner for MLXIP (also known as MondoA) and MLXIPL (also known as ChREBP) (1,2). MLX/MLXIP and MLX/MLXIPL heterodimers function to regulate glucose homeostasis by sensing glucose metabolites in the cell. These heterodimeric protein complexes reside mainly in the cytoplasm and mitochondria of cells grown in low glucose, and translocate to the nucleus upon increased intracellular glucose levels to activate transcription of downstream target genes (1,2). MLX/MLXIP is required for the deregulated Myc-induced reprogramming of multiple metabolic pathways during oncogenesis (3).

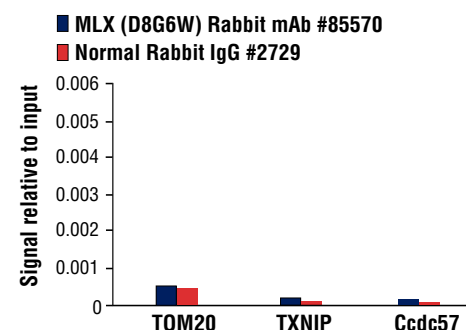
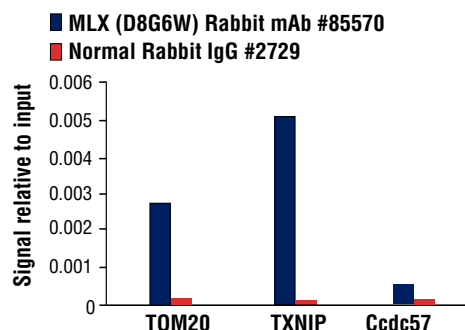
Specificity/Sensitivity: MLX (D8G6W) Rabbit mAb recognizes endogenous levels of total MLX protein. This antibody detects all known isoforms of MLX, including MLX alpha, beta, gamma, delta, and epsilon.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val286 of human MLX protein.



Western blot analysis of extracts from MLX wild-type (WT) and knockout (KO) mouse embryonic fibroblasts (MEF) and various cell lysates using MLX (D8G6W) Rabbit mAb (upper) and GAPDH (D16H11) XP® Rabbit mAb #5174 (lower). MLX WT and KO MEF were kindly provided by Dr. Robert Eisenman at the Fred Hutchinson Cancer Research Center.

Chromatin immunoprecipitations were performed with cross-linked chromatin from MEF MLX wild-type (left) and MLX knock-out (right) cells and MLX (D8G6W) Rabbit mAb or Normal Rabbit IgG #2729 using SimpleChIP® Enzymatic Chromatin IP Kit (Magnetic Beads) #9003. The enriched DNA was quantified by real-time PCR using mouse TOM20 promoter primers, SimpleChIP® Mouse TXNIP Promoter Primers #95288, and SimpleChIP® Mouse Ccdc57 Intron 5 Primers #53559. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.



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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.