

#85570 Store at -20°C

## MLX (D8G6W) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, ChIP	H M R Mk	Endogenous	30 to 50	Rabbit IgG	#Q9UH92	6945

### Product Usage Information

For optimal ChIP results, use 5 µl of antibody and 10 µg of chromatin (approximately 4 x 10<sup>6</sup> cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Chromatin IP	1:100

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### 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.

### 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).

### Background References

1. Billin, A.N. and Ayer, D.E. (2006) *Curr Top Microbiol Immunol* 302, 255-78.
2. Diolaiti, D. et al. (2015) *Biochim Biophys Acta* 1849, 484-500.
3. Carroll, P.A. et al. (2015) *Cancer Cell* 27, 271-85.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

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

### Applications Key

**WB:** Western Blotting **IP:** Immunoprecipitation **ChIP:** Chromatin IP

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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 **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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