Recombinant Human MLX Interacting Protein-Like, GST-tagged

Cat. No. MLXIPL-2041H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human MLXIPL produced in*E.coli*contains amino acids 648-741 of the full length protein fused to GST at the N-terminus, 38.3kDa.
Species	Human
Source	E.coli
ProteinLength	648-741 a.a.
Description	Carbohydrate response element-binding protein (ChREBP) is a member of the basic helix-loop-helix leucine zipper transcription factor family. Under conditions of low glucose, ChREBP is phosphorylated which sequesters the transcription factor in the cytoplasm. Under conditions of elevated glucose, one of its metabolites, xylulose 5-phosphate, activates Protein Phosphatase 2A (PP2A) which dephosphorylates ChREBP at Ser196. Dephosphorylated (Ser196) ChREBP translocates into the nucleus where it is further dephosphorylated at Thr666 by PP2A. The second dephosphorylation allows ChREBP to bind to the carbohydrate response element (ChRE) within the promoter of the L-type pyruvate kinase (L-PK) gene, as well as a subset of lipogenic enzymes. Activation of ChREBP by high glucose in the liver occurs independent of insulin. The inactivation of ChREBP has been proposed as a potential method for reducing obesity and also improving glucose tolerance.
Purity	≥85% by SDS-PAGE.

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Supplied As	A solution in 50 mM sodium phosphate, pH 7.2, containing 100 mM sodium chloride, 1 mM DTT, and 40% glycerol.
Applications	Electrophoretic mobility shift assay and transcription factor assay.
Stability	≥6 months at -80°C.
Full Length	Full L.

GENE INFORMATION

Gene Name	MLXIPL MLX interacting protein-like [Homo sapiens]
Synonyms	MLX interacting protein-like; MIO; CHREBP; MONDOB; WBSCR14; WS-bHLH; bHLHd14; MLXIPL; williams-Beuren syndrome chromosomal region 14 protein; Mlx interactor; MLX-interacting protein-like; class D basic helix-loop-helix protein 14; Williams Beuren syndrome chromosome region 14; carbohydrate response element binding protein; carbohydrate-responsive element-binding protein; WS basic-helix-loop-helix leucine zipper protein; Williams-Beuren syndrome chromosome region 14 protein 1; Williams-Beuren syndrome chromosome region 14 protein 2
Gene ID	51085
mRNA Refseq	NM_032951
Protein Refseq	NP_116569
MIM	605678
UniProt ID	Q9NP71

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Chromosome Location	7q11.23
Pathway	Integration of energy metabolism
Function	transcription repressor activity; transcription factor binding; transcription factor activity; transcription activator activity; protein homodimerization activity; protein heterodimerization activity; DNA binding

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