Recombinant MLX protein (His tag)

Catalog Number	539172
Synonyms	Class D basic helix-loop-helix protein 13; bHLHd13; Max-like bHLHZip protein; Protein BigMax; Transcription factor-like protein 4
Species	Human
Expression System	E. coli
Accession	Q9UH92
Molecular Weight	Predictes a molecular mass of 22.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	123-298
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 123-298 aa (Q9UH92) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human MLX (Max-like protein X) Fragment (123-298) is a high-purity protein product designed for research on the bHLH domain. This fragment offers a focused tool for investigating the DNA-binding and transcriptional regulatory functions of MLX, supporting studies in gene expression, metabolic regulation, and transcription factor interactions. The full-length Max-like protein X (MLX), encoded by the MLX gene in Homo sapiens, functions as a key transcription regulator. It forms sequence-specific DNA-binding complexes with partners such as MAD1, MAD4, MNT, WBSCR14, and MLXIP, recognizing the core sequence 5'-CACGTG-3'. These complexes, including TCFL4-MAD1, TCFL4-MAD4, and TCFL4-WBSCR14, act as transcriptional repressors, while MLX also plays a role in transcriptional activation of glycolytic genes and glucose-responsive gene regulation, highlighting its importance in metabolic pathways. Subcellular localization varies by isoform: Isoforms Alpha and Beta are predominantly cytoplasmic, whereas Isoform Gamma is nuclear, reflecting potential functional diversity in cellular contexts.