Recombinant MLXPL protein (His tag)

Catalog Number	539016
Synonyms	ChREBP; Class D basic helix-loop-helix protein 14; bHLHd14; MLX interactor; MLX-interacting protein-like; WS basic-helix-loop-helix leucine zipper protein; WS-bHLH; Williams-Beuren syndrome chromosomal region 14 protein
Species	Human
Expression System	E. coli
Accession	Q9NP71
Molecular Weight	Predictes a molecular mass of 25.32 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	645-852
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 645-852 aa (Q9NP71) 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	This recombinant protein product features a fragment of the human Carbohydrate-responsive element-binding protein (ChREBP), encompassing amino acids 645-852. This fragment includes the essential bHLH domain, making it an ideal tool for studying DNA binding, heterodimerization with MLX, and transcriptional activation mechanisms in glucose and carbohydrate-responsive pathways. Carbohydrate-responsive element-binding protein (ChREBP), encoded by the MLXIPL gene, functions as a key transcriptional regulator in response to cellular carbohydrate levels. It binds DNA as a heterodimer with MLX/TCFL4, primarily targeting the E box sequence 5'-CACGTG-3', and activates genes involved in glycolysis and metabolic transitions, such as during fasting to feeding. ChREBP plays a critical role in glucose-responsive gene regulation, influencing pathways like de novo lipogenesis and gluconeogenesis by modulating enzyme expression and activity. The protein is localized to the nucleus, where it executes its transcriptional functions.