Recombinant MAFA protein (His tag)

Catalog Number	545499
Synonyms	Pancreatic beta-cell-specific transcriptional activator; RIPE3b1 factor; V-maf musculoaponeurotic fibrosarcoma oncogene homolog A
Species	Human
Expression System	E. coli
Accession	Q8NHW3
Molecular Weight	Predictes a molecular mass of 13.52 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	223-320
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 223-320 aa (Q8NHW3) 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 98-amino acid fragment (residues 223-320) of the human Transcription factor MafA, a key pancreatic beta-cell-specific transcriptional activator. The fragment is designed to encompass the full bZIP functional domain (residues 254-317), making it an ideal tool for targeted studies of DNA binding and transcriptional regulation mechanisms. Transcription factor MafA, encoded by the MAFA gene in Homo sapiens, functions as a critical activator of insulin gene expression. It operates synergistically with NEUROD1/BETA2 and PDX1, binding specifically to the insulin enhancer C1/RIPE3b element and the consensus TRE-type MARE DNA sequence (5'-TGCTGACTCAGCA-3'). This protein is localized to the nucleus, where it regulates transcriptional processes essential for beta-cell function. The provided fragment enables focused investigation into the bZIP domain's role in DNA interaction and transcriptional activation, supporting research on insulin regulation and diabetes-related pathways.