Recombinant USF3 protein (His tag)

Catalog Number	542878
Synonyms	Upstream transcription factor 3
Species	Human
Expression System	E. coli
Accession	Q68DE3
Molecular Weight	Predictes a molecular mass of 16.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	1-124
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 1-124 aa (Q68DE3) 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	Introducing the recombinant human USF3 (1-124) fragment, a precisely engineered protein encompassing the essential basic helix-loop-helix (bHLH) domain. This product is an invaluable tool for researchers studying transcriptional regulation and cellular differentiation processes, offering a focused approach to investigate domain-specific functions. The full-length Basic helix-loop-helix domain-containing protein USF3 (Upstream transcription factor 3) plays a critical role in cellular regulation by negatively controlling epithelial-mesenchymal transition (EMT). This process involves the transformation of epithelial cells into mesenchymal cells with enhanced migratory and invasive capabilities, making USF3 particularly relevant in studies of cellular differentiation and metastasis. The protein is localized to the nucleus, consistent with its function as a transcription factor. The provided fragment (amino acids 1-124) specifically contains the bHLH domain (residues 18-69), which is essential for DNA binding and protein dimerization, enabling targeted investigation of these fundamental molecular mechanisms.