Recombinant TFEC protein (His tag)

Catalog Number	541729
Synonyms	TFE-C; Class E basic helix-loop-helix protein 34; bHLHe34; Transcription factor EC-like; hTFEC-L
Species	Human
Expression System	E. coli
Accession	O14948
Molecular Weight	Predictes a molecular mass of 14.55 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	129-234
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 129-234 aa (O14948) 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 TFEC (Transcription factor EC) bHLH Domain Fragment (aa 129-234) is a high-purity protein fragment designed for studying the DNA-binding and dimerization functions of the basic helix-loop-helix (bHLH) domain. This product enables targeted investigation of transcriptional regulation mechanisms in research applications. Transcription factor EC (TFEC) is a transcriptional regulator that functions as either a repressor or activator, binding specifically to E-box sequences in DNA. It acts as a repressor on minimal promoters containing element F or the mu E3 enhancer sequence, while serving as a transactivator on the tartrate-resistant acid phosphatase (TRAP) promoter. TFEC collaborates with MITF in target gene activation and binds DNA in homo- or heterodimeric forms. The protein is localized to the nucleus, consistent with its role in transcriptional regulation. The provided fragment (amino acids 129-234) contains the complete bHLH domain (aa 139-192), which is essential for DNA binding and protein dimerization, making it valuable for structural and functional studies of TFEC's DNA recognition capabilities.