Recombinant NFE2 protein (His tag)

Catalog Number	542750
Synonyms	Leucine zipper protein NF-E2; Nuclear factor, erythroid-derived 2 45 kDa subunit; p45 NF-E2
Species	Human
Expression System	E. coli
Accession	Q16621
Molecular Weight	Predictes a molecular mass of 19.30 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	223-373
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 223-373 aa (Q16621) 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 NF-E2 bZIP Domain Fragment (aa 223-373) - A precisely engineered protein fragment encompassing the complete bZIP functional domain of the Transcription factor NF-E2 45 kDa subunit. This high-quality recombinant product enables focused investigation of DNA binding mechanisms and transcriptional regulation in erythroid and megakaryocytic systems. The full-length Transcription factor NF-E2 45 kDa subunit (NFE2) serves as an essential component of the NF-E2 complex, playing a critical role in regulating erythroid and megakaryocytic maturation and differentiation. This nuclear factor binds to hypersensitive site 2 of the beta-globin control region and recognizes TCAT/C sequences in AP-1-like core palindromes found in numerous erythroid and megakaryocytic gene promoters. NFE2 requires interaction with MAFK or other small MAF proteins for binding to NF-E2 motifs and contributes comprehensively to hemoglobin production, encompassing globin synthesis, heme production, and iron procurement. The protein exhibits dynamic subcellular localization, primarily residing in the nucleus within PML bodies, while sumoylated forms specifically localize to nuclear PML oncogenic domains. Through interaction with ITCH, NFE2 can translocate to the cytoplasm, highlighting its complex regulatory mechanisms in cellular signaling and gene expression pathways.