Recombinant CTIF protein (His tag)

Catalog Number	537217
Species	Human
Expression System	E. coli
Accession	O43310
Molecular Weight	Predictes a molecular mass of 30.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	345-598
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 345-598 aa (O43310) 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 CBP80/20-dependent translation initiation factor (CTIF) fragment (residues 345-598) from Homo sapiens. This high-purity protein includes the complete MIF4G domain, making it an ideal tool for investigating the pioneer round of mRNA translation and its role in nonsense-mediated mRNA decay. The full-length CTIF protein is specifically required for the pioneer round of mRNA translation mediated by the cap-binding complex (CBC), which occurs during or immediately after mRNA export through the nuclear pore complex. It functions by interacting with NCBP1/CBP80 component of CBC and recruiting the 40S ribosomal subunit via eIF3. Unlike steady-state translation (mediated by eIF4E), CTIF is uniquely involved in this initial translation phase that plays a central role in nonsense-mediated mRNA decay (NMD). The protein localizes to the perinuclear region of the cytoplasm, positioning it strategically for its role in early translation events following nuclear export.