Recombinant REN3B protein (His tag)

Catalog Number	541197
Synonyms	Nonsense mRNA reducing factor 3B; Up-frameshift suppressor 3 homolog B; hUpf3B; Up-frameshift suppressor 3 homolog on chromosome X; hUpf3p-X
Species	Human
Expression System	E. coli
Accession	Q9BZI7
Molecular Weight	Predictes a molecular mass of 29.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	49-278
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 49-278 aa (Q9BZI7) 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 UPF3B Protein Fragment (49-278) is a high-quality, stable, and soluble fragment of the Regulator of nonsense transcripts 3B (hUpf3B), designed for structural and biochemical studies. This fragment supports research into nonsense-mediated decay (NMD) mechanisms and associated molecular interactions. The full-length UPF3B protein, encoded by the UPF3B gene, plays a critical role in nonsense-mediated decay (NMD), a surveillance pathway that degrades mRNAs containing premature stop codons. It associates with the nuclear exon junction complex (EJC) and links it to the NMD machinery by recruiting UPF2, facilitating the formation of the UPF1-UPF2-UPF3 complex that activates NMD. UPF3B also enhances the ATPase and RNA helicase activities of UPF1 and binds spliced mRNA upstream of exon-exon junctions. Additionally, it stimulates translation independently of UPF2 and EJC core components. UPF3B localizes to both the nucleus and cytoplasm, shuttling between these compartments to fulfill its functions in mRNA quality control and regulation.