Recombinant NU153 protein (His tag)

Catalog Number	537788
Synonyms	153 kDa nucleoporin; Nucleoporin Nup153
Species	Human
Expression System	E. coli
Accession	P49790
Molecular Weight	Predictes a molecular mass of 11.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	660-751
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 660-751 aa (P49790) 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 Nuclear Pore Complex Protein Nup153 (Fragment 660-751) is a high-purity, stable protein fragment derived from the NUP153 gene, designed for structural and biochemical studies. This 92-amino acid fragment retains key solubility properties, making it ideal for investigating nucleocytoplasmic transport mechanisms and nuclear pore complex dynamics. Nuclear pore complex protein Nup153 is an essential component of the nuclear pore complex (NPC) in Homo sapiens, functioning as a critical scaffolding element required for nucleocytoplasmic transport of proteins and mRNAs. It plays a vital role in mRNA quality control by retaining unspliced mRNAs in the nucleus through association with TPR, independent of NXF1 and KHDRBS1 pathways. Nup153 anchors TPR to the nuclear membrane and localizes to the nucleoplasmic side of the NPC, forming the nuclear basket structure. The protein dissociates from NPC during mitotic prophase and reintegrates early in G1 phase. Additionally, Nup153 interacts with viral proteins, including HIV-1 capsid protein P24 and HIV-2 Vpx, facilitating viral genome nuclear translocation in non-dividing cells. The protein is tightly associated with the nuclear membrane and lamina, with specific localization patterns observed during spermatid development.