Recombinant RL5 protein (His tag)

Catalog Number	544626
Synonyms	60S ribosomal protein L5
Species	Human
Expression System	E. coli
Accession	P46777
Molecular Weight	Predictes a molecular mass of 35.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	2-297
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 2-297 aa (P46777) 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 Large Ribosomal Subunit Protein uL18 (RPL5) Fragment (2-297) is a high-quality, stable protein designed for structural and biochemical studies. This fragment represents a soluble and functionally relevant region of the 60S ribosomal protein L5, making it ideal for investigating ribosome assembly, protein synthesis, and ribosomal biogenesis pathways in research applications. The full-length Large Ribosomal Subunit Protein uL18, encoded by the RPL5 gene, is a critical component of the ribosome, the cellular machinery responsible for protein synthesis. As part of the large ribosomal subunit (LSU), it contributes to the peptidyl transferase center, which catalyzes peptide bond formation during translation. RPL5 also plays an essential role in ribosome biogenesis as a key constituent of the 5S ribonucleoprotein particle, facilitating LSU formation and rRNA maturation. Additionally, it functions in cellular stress response by stabilizing and activating TP53 when ribosome assembly is disrupted. The protein localizes primarily to the cytoplasm, nucleus, and nucleolus, with nuclear import mediated by specific importins, reflecting its involvement in ribosomal subunit assembly within the nucleus.