Recombinant RPAC2 protein (His tag)

Catalog Number	537491
Synonyms	RNA polymerases I and III subunit AC2; AC19; DNA-directed RNA polymerase I subunit D; RNA polymerase I 16 kDa subunit; RPA16; RPC16; hRPA19
Species	Human
Expression System	E. coli
Accession	P0DPB6
Molecular Weight	Predictes a molecular mass of 16.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	1-133
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-133 aa (P0DPB6) 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 POLR1D Fragment (1-133) - A highly purified, stable protein fragment of the DNA-directed RNA polymerases I and III subunit RPAC2, specifically designed for structural biology and biochemical studies. This 133-amino acid fragment represents a soluble domain ideal for investigating RNA polymerase assembly and function. The full-length POLR1D protein serves as a common component of RNA polymerases I and III, which are essential enzymes that catalyze DNA transcription into RNA using ribonucleoside triphosphates. These polymerases synthesize ribosomal RNA precursors (RNA polymerase I) and various short non-coding RNAs including 5S rRNA, snRNAs, tRNAs, and miRNAs (RNA polymerase III). The protein localizes to the nucleus, specifically within the nucleolus, reflecting its critical role in ribosomal RNA synthesis and processing. This makes POLR1D a fundamental component of the transcriptional machinery required for protein synthesis and cellular function.