# Recombinant CPSF7 protein (His tag)

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| **Catalog Number** | 540748 |
| **Synonyms** | Cleavage and polyadenylation specificity factor 59 kDa subunit; CPSF 59 kDa subunit; Cleavage factor Im complex 59 kDa subunit; CFIm59; Pre-mRNA cleavage factor Im 59 kDa subunit |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q8N684 |
| **Molecular Weight** | Predictes a molecular mass of 12.39 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band. |

## Product Information

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| **Sequence Region** | 82-177 |
| **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 82-177 aa (Q8N684) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human CPSF7 (82-177) Fragment is a high-purity protein product encompassing the RRM (RNA Recognition Motif) domain of Cleavage and Polyadenylation Specificity Factor Subunit 7. This fragment is an essential tool for researchers studying pre-mRNA 3'-end processing, particularly the mechanisms of alternative polyadenylation and RNA binding, enabling targeted investigation of domain-specific functions.<br>The full-length Cleavage and Polyadenylation Specificity Factor Subunit 7 (CPSF7), also known as CFIm59, is a key component of the cleavage factor Im (CFIm) complex in humans. It functions as an activator of pre-mRNA 3'-end cleavage and polyadenylation, a critical step for mRNA maturation. The protein binds to 5'-UGUA-3' RNA elements and plays a central role in regulating alternative cleavage and polyadenylation (APA), which determines the length and composition of mRNA 3'-untranslated regions (UTRs) and influences gene expression. CPSF7 is localized in the nucleus and cytoplasm and shuttles between these compartments independently of transcription and XPO1/CRM1, likely as part of the CFIm complex. The recombinant fragment (amino acids 82-177) provided here contains the RRM domain, which is responsible for RNA binding, making it ideal for studying the molecular basis of RNA recognition and its implications in APA and mRNA processing. |