# Recombinant EIF2D protein (His tag)

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| **Catalog Number** | 546962 |
| **Synonyms** | eIF2d; Hepatocellular carcinoma-associated antigen 56; Ligatin |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | P41214 |
| **Molecular Weight** | Predictes a molecular mass of 24.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band. |

## Product Information

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| **Sequence Region** | 380-584 |
| **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 380-584 aa (P41214) 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** | This product is a recombinant fragment of the human Eukaryotic Translation Initiation Factor 2D (eIF2D), encompassing amino acids 380-584. It includes the critical SWIB/MDM2 and SUI1 functional domains, making it an ideal tool for investigating domain-specific mechanisms in GTP-independent translation initiation and ribosomal tRNA delivery.<br>Eukaryotic Translation Initiation Factor 2D (eIF2D), also known as Hepatocellular Carcinoma-Associated Antigen 56 or Ligatin, is a cytoplasmic protein that plays a unique role in translation initiation. It delivers tRNA to the P-site of the eukaryotic ribosome in a GTP-independent manner, binding Met-tRNA(I) after AUG codon positioning in the 40S ribosomal P-site, particularly during initiation on specific RNAs. eIF2D can also deliver non-Met (elongator) tRNAs to the 40S subunit and facilitates the release of deacylated tRNA and mRNA from recycled 40S subunits following ABCE1-mediated dissociation of post-termination ribosomal complexes. Its functions are implicated in both initiation and ribosomal recycling processes, underscoring its significance in protein synthesis regulation. |