Recombinant IF6 protein (His tag)

Catalog Number	547097
Synonyms	eIF-6; B(2)GCN homolog; B4 integrin interactor; CAB; p27(BBP)
Species	Human
Expression System	E. coli
Accession	P56537
Molecular Weight	Predictes a molecular mass of 28.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	1-245
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-245 aa (P56537) 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 Eukaryotic Translation Initiation Factor 6 (eIF-6) fragment (amino acids 1-245) is a high-purity protein designed for structural and biochemical studies. This stable, soluble fragment retains key functional regions, enabling research into ribosomal assembly, translation regulation, and miRNA-mediated gene silencing mechanisms. Eukaryotic translation initiation factor 6 (eIF-6) is a multifunctional protein critical for ribosomal subunit association and translation initiation. It binds to the 60S ribosomal subunit, preventing premature 40S-60S complex formation in the cytoplasm. Beyond its canonical role, eIF-6 functions in ribosome biogenesis, nuclear export of pre-60S subunits, and miRNA-mediated gene silencing through the RISC complex. It responds to insulin/growth factor signaling to regulate fatty acid synthesis and glycolysis by controlling translation of adipogenic transcription factors. The protein shuttles between the cytoplasm and nucleus/nucleolus, with its cytoplasmic release modulated by RACK1-dependent protein kinase C activity. Its involvement extends to cell cycle progression, ROS-dependent platelet formation, and tumorigenesis regulation, making it a significant target for cellular metabolism and cancer research.