Recombinant RED protein (His tag)

Catalog Number	542611
Synonyms	Cytokine IK; IK factor; Protein RER
Species	Human
Expression System	E. coli
Accession	Q13123
Molecular Weight	Predictes a molecular mass of 46.77 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 59 kDa band.

Product Information

Sequence Region	31-409
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 31-409 aa (Q13123) 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	Introducing the recombinant Protein Red (Cytokine IK) fragment (residues 31-409), a highly stable and soluble unit derived from the human IK gene. This fragment is optimized for structural and biochemical studies, supporting research into spliceosome function, alternative splicing regulation, and mitotic cell cycle progression. Protein Red, encoded by the IK gene in Homo sapiens, is a multifunctional protein involved in pre-mRNA splicing as a component of the spliceosome, where it regulates the selection of alternative splice sites in specific target pre-mRNAs. It plays a critical role in mitotic cell cycle progression by recruiting MAD1L1 and MAD2L1 to kinetochores, thereby triggering the spindle assembly checkpoint. Additionally, it is required for the normal accumulation of SMU1 and, in the context of microbial infection, facilitates the splicing of influenza A virus NS1 pre-mRNA, which is essential for viral particle production. The protein localizes predominantly to the nucleus and nucleoplasm, with presence on chromosomes and at mitotic spindle poles during metaphase and anaphase, highlighting its dynamic subcellular distribution in cell division processes.