Recombinant IRF7 protein (His tag)

Catalog Number	540925
Synonyms	IRF-7
Species	Human
Expression System	E. coli
Accession	Q92985
Molecular Weight	Predictes a molecular mass of 22.08 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	287-467
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 287-467 aa (Q92985) 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 Interferon Regulatory Factor 7 (IRF-7) Fragment (aa 287-467) is a highly stable and soluble protein fragment designed for structural and biochemical studies. This 181-amino acid fragment retains key properties for investigating IRF-7's critical role in regulating type I interferon-dependent immune responses against viral infections. Interferon Regulatory Factor 7 (IRF-7) is a master transcriptional regulator of type I interferon (IFN)-dependent immune responses, playing an essential role in innate immunity against DNA and RNA viruses. It activates transcription of type I IFN genes (IFN-alpha and IFN-beta) and IFN-stimulated genes by binding to interferon-stimulated response elements in their promoters. IRF-7 functions through both virus-activated, MyD88-independent pathways and TLR-activated, MyD88-dependent pathways. The protein exists in an inactive cytoplasmic form in uninfected cells and undergoes phosphorylation-induced dimerization and nuclear translocation upon viral infection or TLR signaling, where it activates transcription along with coactivators. IRF-7 also contributes to adaptive immune responses and regulates EBV latency. The phosphorylated active form accumulates selectively in the nucleus, highlighting its dynamic subcellular localization during immune activation.