Recombinant IFRD2 protein (His tag)

Catalog Number	540222
Synonyms	Protein SKMC15
Species	Human
Expression System	E. coli
Accession	Q12894
Molecular Weight	Predictes a molecular mass of 43.30 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	65-442
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 65-442 aa (Q12894) 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 Interferon-related developmental regulator 2 (Protein SKMC15) fragment (amino acids 65-442) is a highly stable and soluble protein unit derived from human IFRD2. This fragment is specifically designed for structural and biochemical studies, offering researchers a reliable tool to investigate the protein's role in ribosome binding and mRNA translation inhibition. Interferon-related developmental regulator 2 (IFRD2), encoded by the gene IFRD2 in Homo sapiens, functions as a ribosome-binding protein that inhibits mRNA translation by promoting ribosome inactivation. It associates with the P- and E-sites of the ribosome and inserts a C-terminal helix into the mRNA exit channel, effectively precluding translation. This mechanism highlights its significance in regulating protein synthesis, with implications for understanding cellular control of gene expression. The provided fragment (65-442) represents a computationally optimized region selected for stability and solubility, enabling detailed exploration of its structural and functional properties in research applications.