Recombinant SHFL protein (His tag)

Catalog Number	546068
Synonyms	SFL; SHFL; Interferon-regulated antiviral protein; IRAV; Repressor of yield of DENV protein; RyDEN
Species	Human
Expression System	E. coli
Accession	Q9NUL5
Molecular Weight	Predictes a molecular mass of 34.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	2-291
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 2-291 aa (Q9NUL5) 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 Shiftless Antiviral Inhibitor of Ribosomal Frameshifting Protein (SFL/SHFL) Fragment (aa 2-291) is a high-purity, stable protein fragment designed for structural and functional studies. This product captures the essential antiviral and frameshift-inhibitory domains, enabling research into its mechanism against diverse viruses including HIV-1, dengue, Zika, and hepatitis C. The full-length Shiftless (SFL/SHFL) protein is an interferon-regulated antiviral factor that inhibits programmed -1 ribosomal frameshifting (-1PRF) in viral and cellular mRNAs, such as HIV-1 GAG-POL and PEG10. It binds target mRNA and ribosomes to induce premature translation termination at frameshift sites. SFL exhibits broad-spectrum antiviral activity against dengue virus (all serotypes), Zika virus (by promoting NS3 degradation via lysosomes), hepatitis C virus (via disruption of replication organelles), West Nile virus, Chikungunya virus, herpes simplex virus type 1, herpes virus type 8, and human adenovirus. It localizes predominantly to the cytoplasm, including P-bodies, and relocalizes to viral replication complexes (e.g., DENV) upon infection. Isoform 4 lacks frameshift inhibition and ribosome binding capacity. The recombinant fragment (aa 2-291) represents a stable, soluble unit for investigating these mechanisms.