Recombinant SHLD2 protein (His tag)

Catalog Number	545334
Synonyms	Protein FAM35A; RINN1-REV7-interacting novel NHEJ regulator 2; Shield complex subunit 2
Species	Human
Expression System	E. coli
Accession	Q86V20
Molecular Weight	Predictes a molecular mass of 47.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 48 kDa band.

Product Information

Sequence Region	426-835
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 426-835 aa (Q86V20) 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 SHLD2 (426-835) Fragment - A high-quality recombinant protein fragment of Shieldin complex subunit 2 (FAM35A), specifically designed for structural and biochemical studies of DNA damage response mechanisms. This 410-amino acid fragment represents a stable, soluble region ideal for investigating non-homologous end joining pathways and DNA double-strand break repair. Shieldin complex subunit 2 (SHLD2/FAM35A) is a critical component of the shieldin complex that plays an essential role in DNA double-stranded break (DSB) repair. During G1 and S phases of the cell cycle, the complex functions downstream of TP53BP1 to promote non-homologous end joining (NHEJ) while suppressing DNA end resection. This protein mediates various NHEJ-dependent processes including immunoglobulin class-switch recombination and fusion of unprotected telomeres. SHLD2 localizes to the nucleus and chromosomes, accumulating at nuclear foci in response to DNA damage, highlighting its direct involvement in maintaining genomic stability. The selected fragment (426-835) was computationally designed to provide a stable, soluble unit for detailed mechanistic studies of these critical DNA repair functions.