Recombinant SHLD1 protein (His tag)

Catalog Number	540700
Synonyms	RINN1-REV7-interacting novel NHEJ regulator 3; Shield complex subunit 1
Species	Human
Expression System	E. coli
Accession	Q8IYI0
Molecular Weight	Predictes a molecular mass of 14.53 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	93-205
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 93-205 aa (Q8IYI0) 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 SHLD1 (Shieldin complex subunit 1) Fragment (aa 93-205) is a high-purity protein designed for studying DNA double-stranded break repair mechanisms. This 113-amino acid fragment offers a stable and soluble unit ideal for structural and biochemical investigations into non-homologous end joining (NHEJ) pathways. Shieldin complex subunit 1, encoded by the SHLD1 gene, is a critical component of the shieldin complex that plays an essential role in DNA double-stranded break repair. During G1 and S phases of the cell cycle, the complex functions downstream of TP53BP1 to promote non-homologous end joining while suppressing DNA end resection. This mechanism mediates important NHEJ-dependent processes including immunoglobulin class-switch recombination and telomere fusion. The protein localizes to chromosomes, where it contributes to maintaining genomic stability through regulated DNA repair pathways.