Recombinant SHLD3 protein (His tag)

Catalog Number	542964
Synonyms	REV7-interacting novel NHEJ regulator 1; Shield complex subunit 3
Species	Human
Expression System	E. coli
Accession	Q6ZNX1
Molecular Weight	Predictes a molecular mass of 15.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	131-250
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 131-250 aa (Q6ZNX1) 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 Shieldin Complex Subunit 3 (SHLD3) Fragment (aa 131-250) is a high-purity protein designed for studying DNA double-stranded break repair mechanisms. This 120-amino acid fragment has been computationally optimized for stability and solubility, making it ideal for structural, biochemical, and functional assays in non-homologous end joining (NHEJ) research. Shieldin Complex Subunit 3, encoded by the SHLD3 gene, is a critical component of the shieldin complex that plays a fundamental role in DNA damage response. The full-length protein functions during G1 and S phase of the cell cycle to promote non-homologous end joining (NHEJ) repair of DNA double-stranded breaks, operating downstream of TP53BP1 to suppress DNA end resection. This mechanism is essential for various NHEJ-dependent processes including immunoglobulin class-switch recombination and telomere fusion protection. The protein localizes to chromosomes and is specifically recruited to sites of chromosomal double-stranded breaks, highlighting its direct involvement in maintaining genomic stability and DNA repair pathways.