Recombinant TATD2 protein (His tag)

Catalog Number	549862
Synonyms	TatD DNase domain containing 2
Species	Human
Expression System	E. coli
Accession	Q93075
Molecular Weight	Predictes a molecular mass of 32.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	493-761
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 493-761 aa (Q93075) 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 TATDN2 (3'-5' RNA nuclease) Fragment (residues 493-761) is a high-purity protein product designed for structural and biochemical studies. This 269-amino acid fragment represents a stable, soluble unit of human TATDN2, optimized for research into R-loop resolution mechanisms and genomic stability. TATDN2 is a Mg^{2+}-dependent 3'-5' RNA exonuclease and endonuclease that specifically resolves R-loops through degradation of R-loop RNA structures. The enzyme shows no activity against D-loops and minimal activity against RNA-DNA hybrid duplexes, demonstrating specificity for R-loop resolution. Located in the nucleus, TATDN2 plays a crucial role in maintaining genomic stability by preventing R-loop accumulation, making it an important target for DNA repair and genomic integrity research. This recombinant fragment enables detailed investigation of its catalytic mechanisms without interference from other domains.