Recombinant ULP4 protein (His tag)

Catalog Number	531621
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q09275
Gene ID	174307
Molecular Weight	Predictes a molecular mass of 34.80 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	99-382
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 99-382 aa (Q09275) 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 Ubiquitin-like protease 4 (EC 3.4.22.-) fragment (residues 99-382) from Caenorhabditis elegans, offering a stable and soluble unit ideal for structural studies and biochemical assays related to protease activity and mitochondrial stress response pathways. Ubiquitin-like protease 4 (ULP-4), encoded by the ulp-4 gene in Caenorhabditis elegans, is a protease essential for deconjugating smo-1 modifications from target proteins, facilitating cell cycle progression and maintaining mitochondrial homeostasis. It localizes to the cytoplasm, nucleus, centrosome, and mitochondrial matrix, and plays a critical role in the mitochondrial unfolded protein response by regulating transcription factors DVE-1 and ATFS-1, thereby influencing innate immunity and stress adaptation. The provided fragment (residues 99-382) represents a computationally optimized region for experimental use, derived from the full-length protein's functional domains.