Recombinant TOR protein (His tag)

Catalog Number	531759
Synonyms	CeTOR; Lethal protein 363
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q95Q95
Gene ID	172167
Molecular Weight	Predictes a molecular mass of 33.61 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	45-325
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 45-325 aa (Q95Q95) 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 fragment of Target of rapamycin homolog (CeTOR) from Caenorhabditis elegans, encompassing residues 45-325. This 281-amino acid fragment represents a stable, soluble unit ideal for structural studies and biochemical characterization of this crucial serine/threonine-protein kinase involved in mRNA translation regulation and developmental processes. The full-length Target of rapamycin homolog (CeTOR), encoded by the let-363 gene, is a serine/threonine-protein kinase (EC 2.7.11.1) that serves as a central regulator of mRNA translation machinery, primarily by modulating the activity of translation factors such as eIF-4G and eIF-2. This kinase plays critical roles in multiple biological processes including P-granule degradation by autophagy during embryogenesis, establishment of proper germline progenitor numbers during larval development, and mediation of lifespan regulation through insulin signaling and nutrient sensing pathways. The protein is localized to the nucleus and is essential for normal larval development in C. elegans, making it a valuable model for studying conserved TOR signaling pathways.