Recombinant PER protein (His tag)

Catalog Number	532794
Synonyms	Abnormal cell lineage protein 42
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q65ZG8
Gene ID	173503
Molecular Weight	Predictes a molecular mass of 34.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	57-351
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 57-351 aa (Q65ZG8) 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 Period protein homolog lin-42 (57-351) fragment from Caenorhabditis elegans, encompassing the critical PAS domain. This high-purity protein serves as an essential tool for investigating transcriptional repression mechanisms and developmental timing regulation in research models. The full-length Period protein homolog lin-42 functions as a transcriptional repressor that binds promoter regions of target genes, playing a central role in developmental timing regulation. It controls temporal cell fate transitions during embryonic and larval development by restricting expression of key miRNAs (including let-7, miR-48, lin-4, miR-35, and miR-58) and regulates terminal differentiation of seam cells by restricting lin-29 accumulation to the L4 stage. Additionally, it participates in miRNA-mediated asymmetric gene expression in gustatory neurons and inhibits dauer formation by antagonizing daf-12. The protein localizes primarily to the nucleus, with enhanced cytoplasmic expression observed in lateral seam cells during larval molting periods, supporting its dynamic role in developmental timing processes.