Recombinant GEMI protein (His tag)

Catalog Number	534064
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EEM1
Gene ID	176651
Molecular Weight	Predictes a molecular mass of 12.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	89-180
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 89-180 aa (G5EEM1) 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	This recombinant protein product features a stable and soluble fragment (residues 89-180) of the Geminin homolog from Caenorhabditis elegans, encoded by the gmn-1 gene. This fragment is ideal for structural and biochemical studies, offering researchers a reliable tool to investigate DNA replication regulation mechanisms. The full-length Geminin homolog functions as a key inhibitor of DNA replication by binding to the DNA replication licensing factor cdt-1. This interaction prevents cdt-1 from loading the mini-chromosome maintenance (MCM) complex onto DNA, thereby blocking DNA replication licensing. The protein is primarily localized in the cytoplasm but can be re-localized to the nucleus, highlighting its dynamic role in cell cycle control. This recombinant fragment was selected based on computational predictions to ensure stability and solubility, facilitating detailed analysis of its functional properties.