Recombinant SID2 protein (His tag)

Catalog Number	530847
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EEV9
Gene ID	176805
Molecular Weight	Predictes a molecular mass of 10.58 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	45-126
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 45-126 aa (G5EEV9) 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 Systemic RNA interference defective protein 2 (SID-2) fragment (amino acids 45-126) from Caenorhabditis elegans, engineered for stability and solubility to support structural and functional studies of environmental RNA uptake mechanisms. Systemic RNA interference defective protein 2 (SID-2), encoded by the sid-2 gene in C. elegans, is a key mediator of RNA-mediated gene silencing by facilitating the endocytic uptake of double-stranded RNA (dsRNA) from the intestinal lumen into intestinal cells. It selectively internalizes dsRNAs of at least 50 bp and is essential for behavioral avoidance responses triggered by small RNAs from pathogenic bacteria, such as Pseudomonas aeruginosa. Localized to the apical cell membrane as a single-pass type I membrane protein and in cytoplasmic puncta, SID-2 plays a critical role in systemic RNA interference and host-pathogen interactions, highlighting its importance in genetic and immunological research.