Recombinant SEM5 protein (His tag)

Catalog Number	532628
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P29355
Gene ID	181055
Molecular Weight	Predictes a molecular mass of 27.86 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	1-228
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-228 aa (P29355) 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 Sex muscle abnormal protein 5 (sem-5) fragment (amino acids 1-228) from Caenorhabditis elegans is a high-purity protein designed for studying adapter protein functions in receptor tyrosine kinase signaling pathways. This fragment contains the complete SH3 1, SH2, and SH3 2 domains, making it an ideal tool for investigating domain-specific interactions in cellular signaling networks. Sex muscle abnormal protein 5 (sem-5) serves as a crucial adapter protein in Caenorhabditis elegans, modulating signaling through multiple receptor tyrosine kinases including egl-15 and let-23. The protein functions upstream of let-60/ras and participates in diverse biological processes including vulva induction, sex myoblast migration, fluid homeostasis regulation, neuromuscular junction formation, and neuroblast migration. It localizes to the cell membrane and is recruited to the leading edge of migrating cells during development. The full-length protein also regulates nicotinic acetylcholine receptor-mediated processes, dauer formation, and fertility pathways, positioning it as a central node in multiple signaling networks crucial for C. elegans development and physiology.