Recombinant SEM2 protein (His tag)

Catalog Number	532834
Synonyms	Sex muscle abnormal protein 2
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q8T3B9
Gene ID	172162
Molecular Weight	Predictes a molecular mass of 11.91 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	91-175
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 91-175 aa (Q8T3B9) 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 represents amino acids 91-175 of Transcription factor sem-2 (Sex muscle abnormal protein 2) from Caenorhabditis elegans. The fragment provides a stable, soluble unit ideal for structural studies and biochemical characterization of this key developmental regulator. Transcription factor sem-2 is essential for multiple developmental processes in C. elegans, including embryogenesis, vulval development, and cell fate specification in the postembryonic mesoderm. It plays a critical role in specifying sex myoblast cells and their subsequent development into egg-laying muscles. Additionally, sem-2 may contribute to RME GABAergic motor neuron progenitor cell fate determination. The protein localizes to the nucleus, consistent with its function as a transcription factor. The selected fragment (91-175) represents a computationally predicted stable domain suitable for investigating the structural basis of sem-2's regulatory functions.