Recombinant PXDN2 protein (His tag)

Catalog Number	531949
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EG78
Gene ID	181288
Molecular Weight	Predictes a molecular mass of 25.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	352-565
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 352-565 aa (G5EG78) 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 Peroxidasin homolog pxn-2 (EC 1.11.2.-) fragment (residues 352-565) from Caenorhabditis elegans, encompassing the complete Ig-like C2-type 2 domain. This high-quality protein fragment serves as an essential tool for investigating domain-specific functions in collagen cross-linking and basement membrane biology. Peroxidasin homolog pxn-2 is a secreted peroxidase that catalyzes the oxidation of bromide by hydrogen peroxide, generating hypobromite as a reactive intermediate. This enzymatic activity mediates the formation of sulfilimine cross-links between methionine and hydroxylysine residues within collagen IV NC1 hexamers, which is crucial for basement membrane integrity. The protein plays vital roles in embryonic morphogenesis, specifically in epidermal elongation during embryonic development, and is required post-embryonically for maintaining basement membrane integrity and proper muscle-epidermal attachments. Pxn-2 localizes to the extracellular space, extracellular matrix, and basement membrane, where it functions between the epidermis and muscles. It may also have roles in inhibiting axon regeneration and functionally antagonizing peroxidasin pxn-1, making it a significant protein in developmental biology and extracellular matrix research.