Recombinant PTRN1 protein (His tag)

Catalog Number	532450
Synonyms	microtubule-binding protein
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	U4PAZ9
Gene ID	181743
Molecular Weight	Predictes a molecular mass of 34.51 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	1-291
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-291 aa (U4PAZ9) 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 Patronin (ptrn-1) Fragment (1-291) from Caenorhabditis elegans - A high-purity protein fragment containing the complete Calponin-homology (CH) domain, ideal for investigating microtubule minus-end binding and stabilization mechanisms in cellular and neuronal studies. Patronin (microtubule-binding protein) homolog, encoded by the ptrn-1 gene in C. elegans, is essential for microtubule stability and anchorage through its specific binding to microtubule minus ends. It functions redundantly with noca-1 to regulate circumferential microtubule assembly, which is critical for larval development, epidermal integrity, and viability. In neurons, Patronin promotes microtubule polymerization and stability, maintaining neurite morphology in ALM and PLM neurons, and potentially influences synaptic protein localization and neuronal regeneration via the dlk-1 pathway. Additionally, it supports postembryonic epidermal tissue integrity and wound healing. The protein localizes to axons, dendrites, the sarcolemma, cytosol, cytoskeleton, and perikaryon, often appearing in puncta along neurites and microtubules, underscoring its role in cellular structure and function.