Recombinant INX12 protein (His tag)

Catalog Number	534285
Synonyms	Protein opu-12
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	O01634
Gene ID	171944
Molecular Weight	Predictes a molecular mass of 13.74 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	305-408
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 305-408 aa (O01634) 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 Innexin-12 (Protein opu-12) Fragment (residues 305-408) from Caenorhabditis elegans is a highly stable and soluble protein unit designed for structural and biochemical studies. This 104-amino acid fragment enables researchers to investigate gap junction mechanisms and calcium signaling roles in a tractable format. Innexin-12 (encoded by the inx-12 gene) serves as a structural component of gap junctions in C. elegans. It facilitates directional propagation of calcium signals during ovulation, enabling proper oocyte transit through the spermatheca, and contributes to male tail tip morphogenesis. The protein localizes to the cell membrane as a multi-pass transmembrane protein and specifically associates with gap junctions at cell junctions. This fragment represents a computationally selected stable domain that maintains relevance to the protein's native structural and functional characteristics.