Recombinant EXT1 protein (His tag)

Catalog Number	531960
Synonyms	Multiple exostoses homolog 1; Related to mammalian RIB protein 1
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	O01704
Gene ID	178080
Molecular Weight	Predictes a molecular mass of 44.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 48 kDa band.

Product Information

Sequence Region	21-382
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 21-382 aa (O01704) 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 Exostosin-1 homolog (rib-1) fragment from Caenorhabditis elegans (UniProt O01704), encompassing residues 21-382. This fragment is a stable, soluble unit ideal for studying heparan sulfate biosynthesis regulation, embryonic development, and neuronal migration in biochemical and structural research applications. Exostosin-1 homolog (rib-1) is a key regulatory protein in Caenorhabditis elegans, primarily located in the endoplasmic reticulum and Golgi apparatus. It is essential for heparan sulfate biosynthesis by positively modulating N-acetylglucosamine transferase II and glucuronyl transferase II activities through glycosyltransferase rib-2. While it does not directly participate in chondroitin sulfate synthesis, it negatively regulates chondroitin sulfate levels. Functionally, rib-1 is critical during embryonic development, supporting ventral epidermal enclosure, embryo elongation, pharyngeal isthmus formation, and actin cytoskeleton organization in pharyngeal muscles. In adults, it influences egg-laying and vulval morphogenesis, and it guides the directed migration of hermaphrodite-specific neurons, underscoring its broad role in cellular and developmental processes.