Recombinant MCA1 protein (His tag)

Catalog Number	533071
Synonyms	Membrane calcium ATPase-1
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EFR6
Gene ID	177795
Molecular Weight	Predictes a molecular mass of 49.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	444-879
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 444-879 aa (G5EFR6) 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 product is a recombinant fragment of the Plasma membrane calcium-transporting ATPase mca-1 (EC 7.2.2.10) from Caenorhabditis elegans, spanning residues 444-879. This 436-amino acid fragment was computationally designed for stability and solubility, making it an ideal tool for structural studies and biochemical assays focused on calcium transport mechanisms. The full-length Plasma membrane calcium-transporting ATPase mca-1 catalyzes ATP hydrolysis coupled with calcium ion transport across membranes, playing a critical role in cellular calcium homeostasis. It is localized to the cell membrane as a multi-pass membrane protein, facilitating essential calcium regulatory functions in Caenorhabditis elegans. This enzyme's activity is vital for maintaining intracellular calcium balance, impacting various physiological processes.