Recombinant ACT1 protein (His tag)

Catalog Number	533650
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P0DM41
Molecular Weight	Predictes a molecular mass of 43.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	3-376
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 3-376 aa (P0DM41) 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 Actin-1 (EC 3.6.4.-) Fragment (residues 3-376) from Caenorhabditis elegans is a high-purity, stable protein designed for structural and biochemical studies. This 374-amino acid fragment retains key functional domains, offering researchers a soluble and reliable tool to investigate cytoskeletal dynamics and cellular motility mechanisms. Actins are highly conserved proteins essential for various forms of cell motility and are ubiquitously expressed in all eukaryotic cells. Actin-1, encoded by the act-1 gene in Caenorhabditis elegans, plays a critical role in maintaining cytoskeletal integrity and facilitating intracellular movement. It is primarily localized in the cytoplasm and cytoskeleton, where it contributes to processes such as cell division, muscle contraction, and vesicle transport. The provided fragment (residues 3-376) encompasses the core functional domain, enabling detailed analysis of actin's structural and mechanistic properties in research applications.