Recombinant MLC2 protein (His tag)

Catalog Number	534536
Synonyms	Myosin II essential light chain; Non-muscle myosin essential light chain
Species	Drosophila melanogaster
Expression System	E. coli
Accession	P54357
Gene ID	31474
Molecular Weight	Predictes a molecular mass of 18.27 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	1-147
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 1-147 aa (P54357) 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 Drosophila melanogaster Myosin-2 Essential Light Chain (Mlc-c) fragment (amino acids 1-147), encompassing the complete EF-hand 1, EF-hand 2, and EF-hand 3 domains. This high-purity protein is an essential tool for investigating calcium-binding mechanisms, myosin regulation, and cytoskeletal dynamics in non-muscle cells. Myosin-2 essential light chain (non-muscle myosin essential light chain), encoded by the Mlc-c gene in Drosophila melanogaster, is a critical component of myosin II complexes involved in cellular processes such as cytokinesis, cell motility, and maintenance of cell shape. While specific functional and subcellular localization details are not fully characterized in this entry, essential light chains typically contribute to myosin structural stability and regulatory functions through calcium-binding EF-hand motifs. The recombinant fragment (1-147) provides a focused platform for studying domain-specific interactions and functional contributions to myosin II activity in developmental and cellular contexts.