Recombinant ML12A protein (His tag)

Catalog Number	546815
Synonyms	Epididymis secretory protein Li 24; HEL-S-24; MLC-2B; Myosin RLC; Myosin regulatory light chain 2, nonsarcomeric; Myosin regulatory light chain MRLC3
Species	Human
Expression System	E. coli
Accession	P19105
Molecular Weight	Predictes a molecular mass of 21.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Sequence Region	1-171
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-171 aa (P19105) 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	Introducing the recombinant human Myosin regulatory light chain 12A (MYL12A) fragment (residues 1-171), a high-purity protein encompassing the complete EF-hand domains 1, 2, and 3. This fragment serves as an essential tool for investigating contractile regulation in smooth muscle and nonmuscle cells, enabling targeted studies of calcium-binding functionality and phosphorylation-mediated cellular processes. Myosin regulatory light chain 12A (MYL12A) is a critical regulatory subunit that modulates contractile activity in both smooth muscle and nonmuscle cells through phosphorylation. It plays key roles in fundamental cellular processes including cytokinesis, receptor capping, and cell locomotion. The protein's regulatory function is primarily mediated through its EF-hand domains, which are calcium-binding motifs that facilitate the protein's interaction with myosin and subsequent regulation of cellular contractility and movement.