# Recombinant MLR2 protein (His tag)

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| **Catalog Number** | 533656 |
| **Species** | Caenorhabditis elegans |
| **Expression System** | E. coli |
| **Accession** | P19626 |
| **Gene ID** | 181775 |
| **Molecular Weight** | Predictes a molecular mass of 20.26 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band. |

## Product Information

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| **Sequence Region** | 1-170 |
| **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 1-170 aa (P19626) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Myosin regulatory light chain 2 (mlc-2) fragment (residues 1-170) from Caenorhabditis elegans, encompassing the complete EF-hand 1 and EF-hand 2 domains. This purified protein serves as an essential tool for investigating calcium-binding regulation in myosin function and muscle contraction mechanisms.<br>Myosin regulatory light chain 2, encoded by the mlc-2 gene in Caenorhabditis elegans, is a critical component of the myosin complex that regulates muscle contraction. As a regulatory light chain, it modulates myosin motor activity through calcium-dependent signaling pathways. The EF-hand domains contained within this recombinant fragment are essential for calcium ion binding, which triggers conformational changes that regulate myosin's interaction with actin filaments during the contraction cycle. |