Myosin Regulatory Light Chain 2, Ventricular/Cardiac Muscle Isoform (MYL2) Bovine Recombinant Protein

PRODUCT OVERVIEW

Product Name	Myosin regulatory light chain 2, ventricular/cardiac muscle isoform (MYL2), Recombinant Protein
Full Product Name	Recombinant Bovine Myosin regulatory light chain 2, ventricular/cardiac muscle isoform (MYL2)
Product Gene Name	MYL2 recombinant protein
Product Synonym Gene Name	MYL2
Sequence	SPKKAKKRAE GANYNVFSMF EQTQIQEFKE AFTIMDQNRD GFIDKNDLRD TFAALGRVNV KNEEIDEMLK EAPGPINFTV FLQMFGEKLK GADPEETILN AFKVFDPEGK GVLKADYIKE MLTTQAERFS KEEIDQMFAA FPPDVTGNLD YKNLVHIITH GEEKD
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	18,981 Da
Sequence Positions	2-166, full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q3SZE5
Species	Bovine
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for MYL2 recombinant protein	Thus gene encodes the regulatory light chain associated with cardiac myosin beta (or slow) heavy chain. Ca+ triggers the phosphorylation of regulatory light chain that in turn triggers contraction. Mutations in this gene are associated with mid-left ventricular chamber type hypertrophic cardiomyopathy.
Other Notes	Small volumes of MYL2 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MYL2 purchase	MBS1468895 is a recombinant protein targeting MYL2. Also known as Recombinant Bovine Myosin regulatory light chain 2, ventricular/cardiac muscle isoform (MYL2). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MYL2. It may not necessarily be applicable to this product.

NCBI GI #	78042508
NCBI GeneID	505519
NCBI Accession #	NP_001030197.1

UniProt Primary Accession #	Q3SZE5
UniProt Related Accession #	Q3SZE5
GenBank Nucleotide #	NM_001035025.2
NCBI Official Full Name	myosin regulatory light chain 2, ventricular/cardiac muscle isoform
NCBI Official Synonym Full Names	myosin light chain 2
NCBI Official Symbol	MYL2
NCBI Official Synonym Symbols	MLC-2s/v
UniProt Protein Name	Myosin regulatory light chain 2, ventricular/cardiac muscle isoform
UniProt Synonym Protein Names	Myosin light chain 2, slow skeletal/ventricular muscle isoform
Protein Family	Myosin regulatory
UniProt Gene Name	MYL2
UniProt Synonym Gene Names	MLC-2s/v
NCBI Protein Information	myosin regulatory light chain 2, ventricular/cardiac muscle isoform
UniProt Comments for MYL2	Contractile protein that plays a role in heart development and function (). Following phosphorylation, plays a role in cross-bridge cycling kinetics and cardiac muscle contraction by increasing myosin lever arm stiffness and promoting myosin head diffusion; as a consequence of the increase in maximum contraction force and calcium sensitivity of contraction force. These events altogether slow down myosin kinetics and prolong duty cycle resulting in accumulated myosins being cooperatively recruited to actin binding sites to sustain thin filament activation as a means to fine-tune myofilament calcium sensitivity to force (). During cardiogenesis plays an early role in cardiac contractility by promoting cardiac myofibril assembly ().
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