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Product datasheet for RC212352

Myoglobin (MB) (NM_005368) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myoglobin (MB) (NM_005368) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Myoglobin
Synonyms:	PVALB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC212352 representing NM_005368
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGCTCAGCGACGGGGAATGGCAGTTGGTGCTGAACGTCTGGGGGAAGGTGGAGGCTGACATCCCAG
GCCATGGGCAGGAAGTCCTCATCAGGCTCTTTAAGGGTCACCCAGAGACTCTGGAGAAGTTTGACAAGTT
CAAGCACCTGAAGTCAGAGGACGAGATGAAGGCATCTGAGGACTTAAAGAAGCATGGTGCCACTGTGCTC
ACCGCCCTGGGTGGCATCCTTAAGAAGAAGGGGCATCATGAGGCAGAGATTAAGCCCCTGGCACAGTCGC
ATGCCACCAAGCACAAGATCCCCGTGAAGTACCTGGAGTTCATCTCGGAATGCATCATCCAGGTTCTGCA
GAGCAAGCATCCCGGGGACTTTGGTGCTGATGCCCAGGGGGCCATGAACAAGGCCCTGGAGCTGTTCCGG
AAGGACATGGCCTCCAACTACAAGGAGCTGGGCTTCCAGGGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212352 representing NM_005368
Red=Cloning site Green=Tags(s)

MGLSDGEWQLVLNVWGKVEADIPGHGQEVLIRLFKGHPETLEKFDKFKHLKSEDEMKASEDLKKHGATVL
TALGGILKKKGHHEAEIKPLAQSHATKHKIPVKYLEFISECIIQVLQSKHPGDFGADAQGAMNKALELFR
KDMASNYKELGFQG

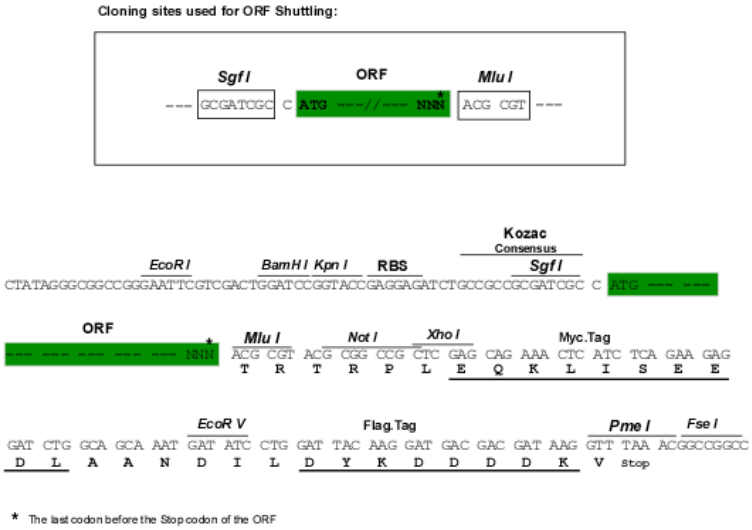
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6047_f04.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005368

ORF Size: 462 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_005368.1

RefSeq Size: 1078 bp

RefSeq ORF: 465 bp

Locus ID: 4151

UniProt ID: P02144

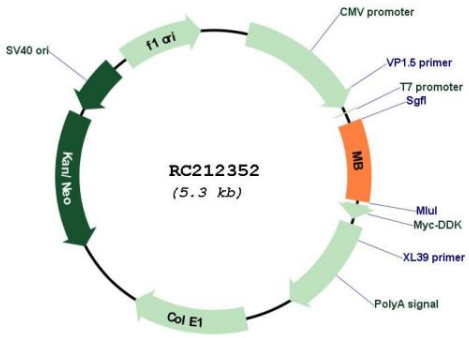
Cytogenetics: 22q12.3

Domains: globin

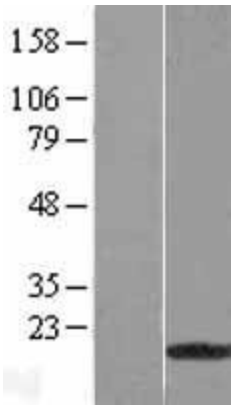
MW: 17 kDa

Gene Summary: This gene encodes a member of the globin superfamily and is predominantly expressed in skeletal and cardiac muscles. The encoded protein forms a monomeric globular haemoprotein that is primarily responsible for the storage and facilitated transfer of oxygen from the cell membrane to the mitochondria. This protein also plays a role in regulating physiological levels of nitric oxide. Multiple transcript variants encoding distinct isoforms exist for this gene. [provided by RefSeq, May 2020]

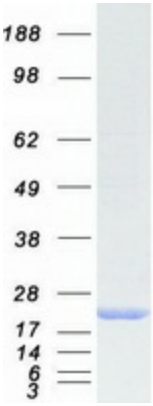
Product images:



Circular map for RC212352



Western blot validation of overexpression lysate (Cat# [LY417346]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212352 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MB protein (Cat# [TP312352]). The protein was produced from HEK293T cells transfected with MB cDNA clone (Cat# RC212352) using MegaTran 2.0 (Cat# [TT210002]).