

Product datasheet for **RC223751**

UNC45B (NM_173167) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	UNC45B
Synonyms:	CMYA4; CTRCT43; MFM11; SMUNC45; UNC-45B; UNC45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



ORF Nucleotide Sequence: >RC223751 representing NM_173167
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGAGGTGGAAGCGGTACAGCTGAAGGAGGAAGGAAACCGGCATTTCCAGCTCCAGGACTACAAGG
CCGCCACAATAGCTACAGCCAGGCCCTGAAGCTGACCAAGGACAAGGCCCTGCTGGCCACGCTTTATCG
GAACCGGGCAGCCTGTGGCCTGAAACCGGAGAGCTACATCCAGGCAGCTTCAGATGCCTCCAGAGCCATC
GACATCAACTCCTCGGACATCAAGGCTCTGTATCGGCGATGCCAGGCACTGGAGCACCTGGGGAAGCTGG
ACCAGGCCCTTCAAAGAGCTGCAGCGTTGTGCCACCCTCGAGCCACGGAACCAGAACTTCCAGGAGATGCT
GAGGAGACTCAACACCAGCATTACAGGAGAAGCTCCGAGTGCAAGTTCTCCACAGACTCGAGGGTACAGAAG
ATGTTTGAGATCCTCTTGATGAAACAGTGAGGCTGATAAGCGGGAAAAGGCTGCCAACAATCTCATTG
TCCTAGGCCGTGAGGAAGCAGGGGCTGAGAAGATCTTCCAGAACAATGGAGTAGCCTTGCTACTGCACT
TCTGGACACTAAGAAGCCTGAGCTGGTGTGGCTGCAGTGCGGACCCTGTGGGCATGTGCAGCGGCCAC
CAAGCCAGAGCCACAGTGATTCTGCATGCAGTGCGGATAGACCGAATCTGTAGCCTCATGGCCGTGGAGA
ATGAGGAGATGTCTCTGGCTGTCTGCAACCTGCTCCAAGCCATCATTGACTCCTTGTCTGGGAGGACAA
GCGGGAGCATCGAGGGAAGGAGGAGGCCCTGGTTCTAGACACCAAGAAGGACCTGAAGCAGATCACCAGC
CACCTGCTGGACATGCTAGTCAGCAAGAAGGTGTCTGGCCAGGGCAGGGATCAGGCGCTGAACCTGCTCA
ATAAGAATGTTCCAGGAAGGACCTTGCCATTTCATGACAACCTCACGTACCATCTATGTGGTGGATAATGG
TCTGAGGAAGATCCTGAAGTTGTGGGGCAGGTTCCAGATCTGCCATCCTGCCTGCCCTGACTGACAAC
ACCCGATGCTGGCCTCTATCCTCATCAACAAGCTCTATGATGACCTGCGCTGTGACCCGGAGCGGATC
ACTTCCGAAGATCTGTGAGGAATATATCACGGCAAGTTTGACCCCAAGGACATGGACAAGAATTGAA
TGCCATCCAGACAGTGTCAGGGATCTGCAGGGGCCCTTTGACCTGGGCAACCAGCTGCTGGGACTGAAA
GGTGTGATGGAGATGATGGTGGCACTATGTGGCTCAGAGCGCAGACGGACAGCTGGTGGCCGTGGAGG
CCCTCATCCATGCCTCCACGAAGCTCAGCCGCGCCACCTTCATCATCACCATGGAGTGTCACTGCTCAA
ACAGATCTACAAGACCACAAAAATGAGAAGATCAAGATCCGCACACTGGTGGGACTCTGTAAGCTCGGC
TCTGCAGGTGGCAGACTACGGTCTCAGGCAGTTTGCGGAAGGGTCGACAGAAAAAAGTGGCCAAACAGT
GTGCGAAGTGGCTGTGCAATATGTCCATAGACACTCGGACCCGACGCTGGGAGTGGAGGGCCTGGCCTA
CCTCACGCTGGACGCTGATGTGAAGGACGACTTTGTCCAGGACGTCCTGCCCTGCAGGCCATGTTTGAG
CTGGCCAAG: : : : : ACCAGTGACAAGACCATCCTGTACTCGGTGGCCACCACCCTGGTGAAGTGCACCA
ACAGCTACGATGTCAAGGAGGTGATCCAGAGCTTGTCCAGCTCGCCAAGTTCTCCAAGCAGCATGTGCC
CGAGGAACACCCCAAGGACAAGAAGGACTTTATAGACATGCGGGTGAAGCGGCTTCTGAAGCGGGTGTG
ATCTCTGCCCTGGCTTGCATGGTGAAAGCAGATAGTGCCATCCTCACTGACCAAGGAGCTGCTGG
CCAGGGTATTCCTGGCACTGTGTGACAACCAAGGACCGAGGCACCATTTGGCTCAAGGTGGTGGCAA
GGCCCTGATTCCCTGGCTTTGGAGGGCAGAGATGTGGGCAAGGTGAAGGCAGCCACGCTCTAGCAAAG
ATCGCTGCTGTCTCCAATCCGACATTGCTTTTCTGGGGAGCGGGTGTATGAGGTGGTGGCCCTTGTG
TAAGACTCTTGGACACACAGAGGGATGGGCTTCAGAACTATGAGGCTCTCCTAGGCCTCACCAACCTGTC
TGGCGGAGTGACAACTCCGGCAGAAGATCTTTAAGGAGAGGGCCTTGCCAGACATCGAGAACTACATG
TTTGAGAATCATGATCAGCTGCGGCAGGCGGCCACCGAGTGATGTGCAACATGGTGTCCACAAGGAGG
TACAGGAAAGGTTCTTGCTGACGGGAATGACCGGCTGAAGCTGGTGGTGTCTCTGCGGGGAGGATGA
TGATAAGGTGCAGAAATGCGGCTGCAGGGGCTCTGGCCATGCTGACAGCAGCACACAAGAACTGTGCCTC
AAGATGACTCAAGTGACAACCCAGTGGTTGGAGATCTCCAGCGGCTTTGCCTGCACGACCAAGCTGTCTG
TCCAACACCGGGGCTGGTCAATTGCTACAACCTACTGGCAGCCGATGCTGAGCTGGCCAAGAAGCTGGT
GGAGAGTGAGCTGTGGAGATCCTGACTGTGGTGGGCAACAGGAGCCAGATGAGAAGAAGGCAGAAGTG
GTTTCAGACAGCCCGAGAATGTCTCATCAAGTGATGGATTATGGTTTCATTAAACAGTGTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223751 representing NM_173167

Red=Cloning site Green=Tags(s)

MAEVEAVQLKEEGNRHFQLQDYKAATNSYSQALKLTKDKALLATLYRNRAACGLKTESYIQAASDASRAI
DINSSDIKALYRRCQALEHLGKLDQAFKDVQRCATLEPRNQNFQEMLRRLNTSIEKLRVQFSTDSRVQK
MFEILLDENSEADKREKAANNLIVLGREEAGAEKIFQNNGVALLQLLDTKPELVLAAVRTL SGMCSGH
QARATVILHAVRIDRICSLMAVENEEMSLAVCNLLQAIIDSLSGEDKREHRGKEEALVLDTKDLKQITS
HLLDMLVSKKVSGQGRDQALNLLNKNVPRKDLAHDNSRTIYVVDNGLRKILKVVGQVPDLPSCLPLTDN
TRMLASILINKLYDDLCDPERDHFRIKICEEYITGKFDPPQMDKNLNAIQTVSGILQGPFDLGNQLLGLK
GYMEMMVALCGSERETDQLVAEALIHASTKLSRATFIITNGVSLLKQIYKTTKNEKIKIRTLVGLCKLG
SAGGTDYGLRQFAEGSTEKLAKQCRKWL CNMSIDTRTRRWAVEGLAYLTLDADVKKDFVQDVPALQAMFE
LAKXXTSDKTILYSVATTLVNCTNSYDVKEIPELVQLAKFSKQHVPEEHPKDKKDFIDMRVKRLKAGV
ISALACMVKADSAILTDQTKELLARVFLALCDNPKDRGTIVAQGGGKAL IPLALEGTDVGKVKAHALAK
IAAVSNPDIAFPGERVYEVVRPLVRLDTRDGLQNYEALLGLTNLSGRSDKLRQKIFKERALPDIENYM
FENHDQLRQAATECMCNMVLHKEVQERFLADGNDRLKLVLLCGEDDDKVQNAAGALAMLTAHHKKLCL
KMTQVTTQWLEILQRLCLHDQLSVQHRGLVIAYNLLAADAELAKKLVESELLEILTVVGKQEPDEKKAEV
VQTARECLIKCMDYGFIPVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

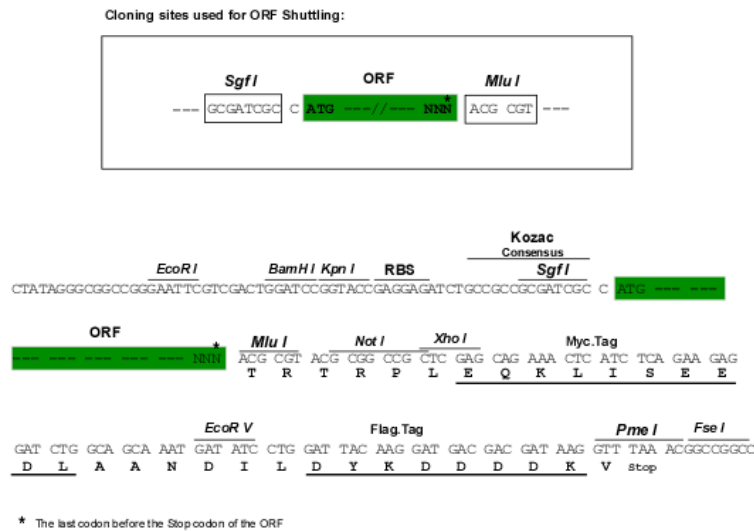
Chromatograms:

https://cdn.origene.com/chromatograms/mk6170_g07.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

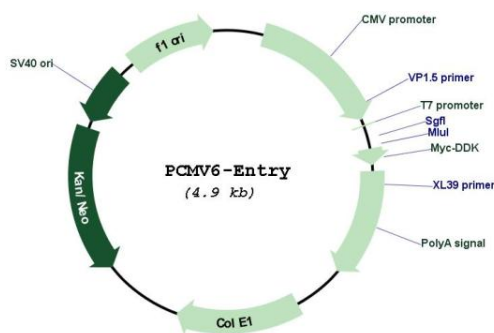


ACCN:	NM_173167
ORF Size:	2793 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_173167.3
RefSeq Size:	5694 bp
RefSeq ORF:	2796 bp
Locus ID:	146862
UniProt ID:	Q8IWX7
Cytogenetics:	17q12
MW:	103.6 kDa

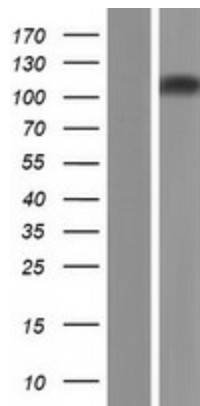
Gene Summary:

This gene encodes a co-chaperone required for folding and accumulation of type II myosins. The protein consists of three tetratricopeptide repeat motifs at the N-terminus that form a complex with heat shock protein 90, a central region of unknown function that is conserved in all Unc-45 proteins, and a C-terminal Unc-45/Cro1/She4 domain. The protein is expressed at high levels in striated muscle, where its muscle myosin chaperone activity is dependent on heat shock protein 90 acting as a co-chaperone. A missense mutation in this gene has been associated with cataract development. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2015]

Product images:



Circular map for RC223751



Western blot validation of overexpression lysate (Cat# [LY403546]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223751 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified UNC45B protein (Cat# [TP323751]). The protein was produced from HEK293T cells transfected with UNC45B cDNA clone (Cat# RC223751) using MegaTran 2.0 (Cat# [TT210002]).