

Product datasheet for **SC306539**

RBM24 (NM_153020) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: RBM24 (NM_153020) Human Untagged Clone
Tag: Tag Free
Symbol: RBM24
Synonyms: dj259A10.1; RNPC6
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >SC306539 representing NM_153020.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTATGTATGTCTGTGTGTCTGTTGCTAAGGTCACCATGGCTGACCGGGCTGCTGCCAAAGGGCC
TGCAAGGATCCCAATCCCATCATTGATGGCAGAAAGGCCAACGTGAACCTGGCATACTTAGGAGCAAAA
CCAAGGATCATGCAACCAGGTTTGCCTTTGGTGTCAACAACCTCATCCAGCCCTTATACAAAGACCT
TTCGGGATACCTGCCACTATGTCTATCCGCAGGCTTTTGTGCAGCCGGGAGTGGTCATTCCACACGTC
CAGCCGACAGCAGCTGCCGCTCCACCACCCTTACATTGATTACACTGGAGCTGCATACGCACAATAC
TCAGCAGCTGCTGCTGCTGCCGCCGCTGCTGCCTATGACCAGTACCCTATGCAGCCTCTCCAGCT
GCTGCAGGATATGTTACTGCTGGGGCTATGGCTACGCAGTCCAGCAGCCAATCACCGCAGCGGCACCT
GGGACAGCTGCCGCCGCTGCAGCAGCTGCTGCCGCTGCAGCATTGGCCAGTACCAGCCTCAGCAG
CTGCAGACAGACCGAATGCAATAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: Sgfl-Mlul
Plasmid Map: □
ACCN: NM_153020
Insert Size: 576 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<ol style="list-style-type: none"> 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:	<u>NM_153020.2</u>
RefSeq Size:	2399 bp
RefSeq ORF:	576 bp
Locus ID:	221662
UniProt ID:	<u>Q9BX46</u>
Cytogenetics:	6p22.3
Protein Families:	Druggable Genome
MW:	19.6 kDa

Gene Summary:

Multifunctional RNA-binding protein involved in the regulation of pre-mRNA splicing, mRNA stability and mRNA translation important for cell fate decision and differentiation (PubMed:20977548, PubMed:24375645, PubMed:29358667, PubMed:29104163). Plays a major role in pre-mRNA alternative splicing regulation (PubMed:26990106, PubMed:29104163). Mediates preferentially muscle-specific exon inclusion in numerous mRNAs important for striated cardiac and skeletal muscle cell differentiation (PubMed:29104163). Binds to intronic splicing enhancer (ISE) composed of stretches of GU-rich motifs localized in flanking intron of exon that will be included by alternative splicing (By similarity). Involved in embryonic stem cell (ESC) transition to cardiac cell differentiation by promoting pre-mRNA alternative splicing events of several pluripotency and/or differentiation genes (PubMed:26990106). Plays a role in the regulation of mRNA stability (PubMed:20977548, PubMed:24356969, PubMed:24375645, PubMed:29104163). Binds to 3'-untranslated region (UTR) AU-rich elements in target transcripts, such as CDKN1A and MYOG, leading to maintain their stabilities (PubMed:20977548, PubMed:24356969). Involved in myogenic differentiation by regulating MYOG levels (PubMed:20977548). Binds to multiple regions in the mRNA 3' UTR of TP63 isoform 2, hence inducing its destabilization (PubMed:24375645). Promotes also the destabilization of the CHRM2 mRNA via its binding to a region in the coding sequence (PubMed:29104163). Plays a role in the regulation of mRNA translation (PubMed:29358667). Mediates repression of p53/TP53 mRNA translation through its binding to U-rich element in the 3' UTR, hence preventing EIF4E from binding to p53/TP53 mRNA and translation initiation (PubMed:29358667). Binds to a huge amount of mRNAs (PubMed:29104163). Required for embryonic heart development, sarcomer and M-band formation in striated muscles (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) differs in the 5' UTR and coding sequence compared to variant 1. The resulting isoform (2) has a shorter and distinct N-terminus compared to isoform 1.