

Product datasheet for **RG226854**

RBM24 (NM_001143941) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RBM24 (NM_001143941) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: RBM24
Synonyms: dj259A10.1; RNPC6
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG226854 representing NM_001143941
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTATGTATGTCTGTGTGTCTGTTGCTAAGGTCACCATGGCTGACCGGGCTGCTGCCAAAGGGCCT
 GCAAGGATCCCAATCCCATCATTGATGGCAGAAAGGCCAACGTGAACCTGGCATACTTAGGAGCAAAACC
 AAGGATCATGCAACCAGGTTTTGCCTTTGGTGTCAACAACCTTATCCAGCCCTTATACAAAGACCTTTC
 GGGATACCTGCCACTATGTCTATCCGCAGGCTTTTGTGCAGCCGGGAGTGGTCATTCCACACGTCCAGC
 CGACAGCAGCTGCCGCCCTCCACCACCCCTTACATTGATTACACTGGAGCTGCATACGCACAATACTCAGC
 AGCTGCTGCTGCTGCCGCCGCGCTGCTGCCTATGACCAGTACCCTATGCAGCCCTCCAGCTGCTGCA
 GGATATGTTACTGCTGGGGCTATGGCTACGCAGTCCAGCAGCCAATCACCAGCAGCGCACCTGGGACAG
 CTGCCGCCGCGCTGCAGCAGCTGCTGCCGCTGCAGCATTTGGCCAGTACCAGCCTCAGCAGCTGCAGAC
 AGACCGAATGCAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

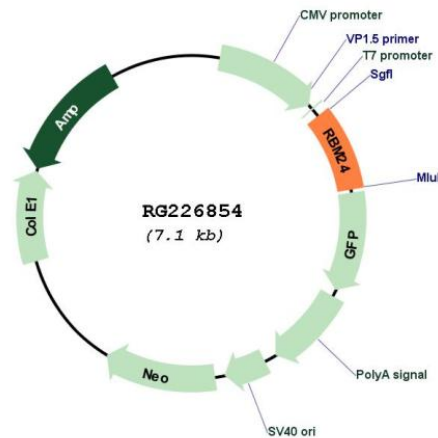
Protein Sequence: >RG226854 representing NM_001143941
 Red=Cloning site Green=Tags(s)
 MYVCLCVSVAKVTMADRAAAERACKDPNPIIDGRKANVNLAYLGAKPRIMQPGFAFGVQQLHPALIQRPF
 GIPAHYVYPQAFVQPGVIVPHVQPTAAAASTTPYIDYTGAAYAQYSAAAAAAAAAAAAAYDQYPYAASPAAA
 GYVTAGGYGYAVQQPITAAAPGTAATAAAAAAAAAAAAAAFGQYQPQLQTRMQ

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



Cloning Scheme:

Plasmid Map:


ACCN: NM_001143941

ORF Size: 576 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_001143941.1](#), [NP_001137413.1](#)

RefSeq Size: 2451 bp

RefSeq ORF: 537 bp

Locus ID: 221662

UniProt ID: [Q9BX46](#)

Cytogenetics: 6p22.3

Protein Families: Druggable Genome

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]