

Product datasheet for SC119538

RRM2 (NM_001034) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RRM2 (NM_001034) Human Untagged Clone
Tag:	Tag Free
Symbol:	RRM2
Synonyms:	C2orf48; R2; RR2; RR2M
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119538 sequence for NM_001034 edited (data generated by NextGen Sequencing)

```

ATGCTCTCCCTCCGTGTCCCGCTCGCGCCCATCACGGACCCGAGCAGCTGCAGCTCTCG
CCGCTGAAGGGGCTCAGCTTGGTCGACAAGGAGAACACGCCGCCGCCCTGAGCGGGACC
CGCGTCTGGCCAGCAAGACCGCGAGGAGGATCTTCCAGGAGCCACGGAGCCGAAAACT
AAAGCAGCTGCCCGCGGTGGAGGATGAGCCGCTGCTGAGAGAAAACCCCGCCGCTTT
GTCATCTTCCCCATCGAGTACCATGATATCTGGCAGATGTATAAGAAGGCAGAGGCTTCC
TTTTGGACCGCCGAGGAGGTGGACCTCTCCAAGGACATTCAGCACTGGGAATCCCTGAAA
CCCGAGGAGAGATATTTTATATCCCATGTTCTGGCTTTCTTTCAGCAAGCGATGGCATA
GTAAATGAAAACCTGGTGGAGCGATTTAGCCAAGAAGTTCAGATTACAGAAGCCCGTGT
TTCTATGGCTTCCAAATTGCCATGGAAAACATACATTCTGAAATGTATAGTCTTCTTATT
GACACTTACATAAAAGATCCCAAAGAAAGGAATTTCTCTTCAATGCCATTGAAACGATG
CCTTGTGTCAAGAAGAAGGCAGACTGGGCCTTGCCTGGATTGGGGACAAGAGGCTACC
TATGGTGAACGTGTTGTAGCCTTTGCTGCAAGTGAAGGCATTTTCTTTCCGGTTCTTTT
GCGTCGATATTCTGGCTCAAGAAACGAGGACTGATGCCTGGCCTCACATTTTCTAATGAA
CTTATTAGCAGAGATGAGGGTTTACTGTGATTTTGGCTTGCCTGATGTTCAAACACCTG
GTACACAAACCATCGGAGGAGAGTAAGAGAAATAATTATCAATGCTGTTCCGATAGAA
CAGGAGTTCCTCACTGAGGCCTTGCCCTGTAAGCTCATTGGGATGAATTGCACTTAATG
AAGCAATACATTGAGTTTGTGGCAGACAGACTTATGCTGGAATGGGTTTTAGCAAGGTT
TTCAGAGTAGAGAACCCATTTGACTTTTATGGAGAATATTTCACTGGAAGGAAAGACTAAC
TTCTTTGAGAAGAGAGTAGGCGAGTATCAGAGGATGGGAGTGATGTCAAGTCCAACAGAG
AATTCTTTTACCTTGATGCTGACTTCTAA

```

Clone variation with respect to NM_001034.3



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001034 unedited
 NTTGTCANAATTTGTATACGACTCATATAGGCGGCNCGCAATTCGCACGAGGTCCTGTC
 CTGGCTGCTCGCTCTGCTTCGCTGCGCCTCCCTATGCTCTCCCTCCGTGTCGCGCTCGG
 CCCATCACGGACCCGACGAGCTGCAGCTCTCGCCGCTGAAGGGGCTCAGCTTGGTCGAC
 AAGGAGAACACGCCGCCGGCCCTGAGCGGGACCCGCGTCTGGCCAGCAAGACCGGAGG
 AGGATCTTCCAGGAGCCACGGAGCCGAAAACTAAAGCAGCTGCCCGCGGTGGAGGAT
 GAGCCGCTGCTGAGAGAAAAACCCCGCGCTTTGTCATCTTCCCATCGAGTACCATGAT
 ATCTGGCAGATGTATAAGAAGGCAGAGGCTTCTTTTGGACCGCCGAGGAGGTGGACCTC
 TCCAAGGACATTCAGCACTGGGAATCCCTGAAACCCGAGGAGAGATATTTTATATCCCAT
 GTTCTGGCTTTCTTTGCAGCAAGCGATGGCATAGTAAATGAAAACCTTGGTGGAGCGATTT
 AGCCAAGAAGTTCAGATTACAGAAGCCCGCTGTTTCTATGGCTTCCAAATTGCCATGGAA
 AACATACATTCTGAAATGTATAGTCTTCTTATTGACACTACATAAAAGATCCCAAAGAA
 AGGGAATTTCTTCAATGCCATTGAAACGATGCCTTGTGTCAAGAAGAAGGCAGACTGG
 GCCTTGGCTGGATTGGGACANAGAGGCTACCTATGGTGAACGTNGTGTANCCTTTGCT
 GCAGTGAAGGCATTNTCTTTCCGGNTCTTTTGGCTCGATATTCTGGCTCAGAAACGAG
 GACTGATGCCTGGCTCACATTNTCTAATGAACTATTAGCAGAGATGAGGTTTACTACTGT
 GATTTTGTTCCTGATGNTCAACACCTGGTACCA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001034 unedited
 GGACTACTGNCCGCGGCCGNGTCNANGATCGGTTTTTTTTTTTTTTTTTTGGTTAACA
 AATATTTTAAATCTTAAATAAACTTAAAAATTACATGCTTAGTCTACACAAGTTTAACT
 TACTTTAGTCACTTAGTGAATTGTGAATTGGCTCCATTAGTGGTCAGGAGAATGTATTT
 GGTGTAGAAACCAATAAATCAAGCTATTATCGCCTTGTGAGTACAAACAATGTTTATTT
 GTTTGTAAGTGCAGGTTTATATTTAAGTAAACATTAATCTGCGTTGAAGCAGTGAG
 GCTGCATCTTTAACTGGCTGTGCTGGTTAAAGGACTGTTTAAATCCCGCTATGCTAAGCT
 CACTAAAGGGTCACCCCTCACTTTAAAGCCAAGACTGCCATTGTCACTGTATGGTAAAGT
 CACAGCCAGCCAGGCTTCTGGCAAAAGGTGATACTACCAGCACTATAAACAGACAGGAC
 TGGTGTGAGGTAGCTACACAGTTTTAAAGATGCTGTTAATGAACATTACGGACAATTCA
 TGGTGTGGCTAGTTGGTAACTTCAGCTGATTTTCTTATGAGATGGAAAAAAAAAATC
 AGCCAAGTAAGGGCACATCTTCAGTTCATTTAGAAGTCAGCATCCAAGGTAAGAATTC
 TCTGTTGGACTTGACATCACTCCCATCCTCTGATACTCGCCTACTCTCTCTCAAAGAAG
 TTAGTCCCTTCCAGNGAAATATTCTCCATAAAGTCAATGGGTCTCTACTCTGAAAA
 CCTGCTAAACCCAGTNNCAGCATAGTCTGTCTGCACAACTCATGTATTGCTTCATAGAG
 TGCATTATCCCATGAGCTTACAGCAAGGGCTCATGAGGGACTCCTGTTCTATTTCGACA
 GCATTGAAAATATTTCTTACTTCT

Restriction Sites:

NotI-NotI

ACCN:

NM_001034

Insert Size:

1770 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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_001034.1](#), [NP_001025.1](#)

RefSeq Size: 2500 bp

RefSeq ORF: 1170 bp

Locus ID: 6241

UniProt ID: [P31350](#)

Cytogenetics: 2p25.1

Domains: ribonuc_red_sm

Protein Families: Druggable Genome

Protein Pathways: Glutathione metabolism, Metabolic pathways, p53 signaling pathway, Purine metabolism, Pyrimidine metabolism

Gene Summary:

This gene encodes one of two non-identical subunits for ribonucleotide reductase. This reductase catalyzes the formation of deoxyribonucleotides from ribonucleotides. Synthesis of the encoded protein (M2) is regulated in a cell-cycle dependent fashion. Transcription from this gene can initiate from alternative promoters, which results in two isoforms that differ in the lengths of their N-termini. Related pseudogenes have been identified on chromosomes 1 and X. [provided by RefSeq, Sep 2009]

Transcript Variant: This variant (2) uses an alternative downstream promoter, and it thus has a shorter 5' UTR and uses a downstream translational start codon, compared to variant 1. The encoded isoform (2) is shorter at the N-terminus, compared to isoform 1. CCDS Note: This CCDS represents the transcript derived from the downstream promoter of this gene. Studies in both PMIDs 10631117 and 11978970 support the presence of the downstream promoter, as do the 5' extents of several human and homologous transcripts. PMID:11978970 also provides evidence for an upstream promoter; the transcript derived from the upstream promoter would encode a protein that is 60 aa longer at the N-terminus.