

Product datasheet for **RC205718**

RRM2 (NM_001034) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RRM2 (NM_001034) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RRM2
Synonyms:	C2orf48; R2; RR2; RR2M
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205718 representing NM_001034 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTCTCCCTCCGTGTCCCGCTCGCGCCATCACGGACCCGAGCAGCTGCAGCTCTCGCCGCTGAAGG
GGCTCAGCTTGGTCGACAAGGAGAACACGCCGCCGCCCTGAGCGGGACCCGCTCTGGCCAGCAAGAC
CGCGAGGAGGATCTTCCAGGAGCCACGGAGCCGAAAACCTAAAGCAGCTGCCCGCGCTGGAGGATGAG
CCGCTGCTGAGAGAAAACCCCGCGCTTGTGTCATCTTCCCATCGAGTACCATGATATCTGGCAGATGT
ATAAGAAGGCAGAGGCTTCTTTTGGACCGCCGAGGAGGTGGACCTCTCCAAGGACATTCAGCACTGGGA
ATCCCTGAAACCCGAGGAGAGATATTTATATCCCATGTTCTGGCTTTCTTTCGACGAAGCGATGGCATA
GTAAATGAAAACCTGGTGAGCGATTTAGCCAAGAAGTTCAGATTACAGAAGCCCGCTGTTTCTATGGCT
TCCAAATGGCATGGAACACATACATTCTGAAATGTATAGTCTTCTTATTGACACTTACATAAAGATCC
CAAAGAAAGGGAATTTCTTCAATGCCATTGAAACGATGCCTTGTGTCAAGAAGAAGGCAGACTGGGCC
TTGCGCTGGATTGGGGACAAAGAGGCTACCTATGGTGAACGTGTTGTAGCCTTTGCTGCAGTGGAAGGCA
TTTTCTTTCCGGTCTTTTGCCTCGATATTCTGGCTCAAGAAACGAGGACTGATGCCTGGCCTCACATT
TTCTAATGAACTTATTAGCAGAGATGAGGTTTACTGTGATTTTGTGCTGCCTGATGTTCAAACACCTG
GTACACAACCATCGGAGGAGAGATAAGAGAAATAATTCAATGCTGTTCCGATAGAACAGGAGTTCC
TCACTGAGGCCTTGCCTGTGAAGCTCATTGGGATGAATTGCACTCTAATGAAGCAATACATTGAGTTTGT
GGCAGACAGACTTATGCTGGAACCTGGGTTTTAGCAAGTTTTTCAGAGTAGAGAACCATTGACTTTATG
GAGAATATTTCACTGGAAGGAAAGACTAATTCTTTGAGAAGAGAGTAGGCGAGTATCAGAGGATGGGAG
TGATGTCAAGTCCAACAGAGAATCTTTTACCTTGGATGCTGACTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205718 representing NM_001034
Red=Cloning site Green=Tags(s)

MLSLRVPLAPITDPQQLSPLKGLSLVDKENTPPALSGTRVLASKTARRIFQEPTPEPKTKAAAPGVEDE
 PLLRENPRRFVIFPIEYHDIWQMYKKAESFWTAEVLDLKDQHWESLKPEERYFISHVLAFFAASDGI
 VNENLVERFSQEVQITEARCFYGFQIAMENIHSEMYSLLIDTYIKDKPEREFLFNAIETMPCVKKKADWA
 LRWIGDKEATYGERVVAF AAVEGIFFGSGFASIFWLKKRGLMPGLTF SNELISRDEGLHCDFACL MFKHL
 VHKPSEERVREIIINAVRIEQEFLTEALPVKLI GMNCTLMKQYIEFVADRLMLELGF SKVFRVENPFDFM
 ENISLEGKTNFFEKRVGEYQRMGMSSPTENSFTLDADF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3135_f01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001034

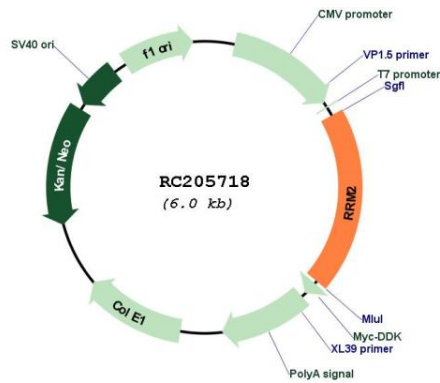
ORF Size: 1167 bp

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.

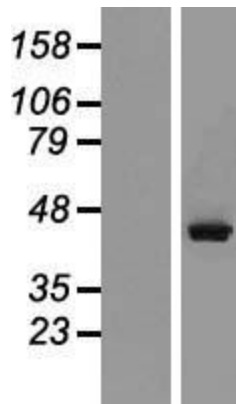
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in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

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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001034.4
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
MW:	44.7 kDa
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]

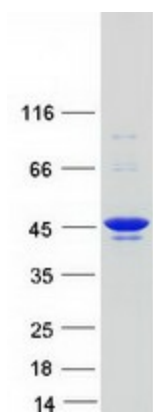
Product images:



Circular map for RC205718



Western blot validation of overexpression lysate (Cat# [LY421950]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205718 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RRM2 protein (Cat# [TP305718]). The protein was produced from HEK293T cells transfected with RRM2 cDNA clone (Cat# RC205718) using MegaTran 2.0 (Cat# [TT210002]).