

## Product datasheet for **TP300726M**

### RRM1 (NM\_001033) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human ribonucleotide reductase M1 (RRM1), 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>Peptide sequence encoded by RC200726 Blue=ORF Red=Cloning site Green=Tag(s)

MHVIKRDGRQERVMFDKITSRIQKLCYGLNMDFVDPAQITMKVIQGLYSGVTTVELDTLAAETAATLTT  
KHPDYAILAARIAVSNLHKETKKVFSVDMEDLYNYINPHNGKHSPMVAKSTLDIVLANKDRLNSAIYD  
RDFSYNFYFGFKTLERSYLLKINGKVAERPQHMLMRVSVGIHKEDIDAAIETYNLLSERWFTHASPTLFN  
AGTNRPLSSCFLLSMKDDSIIEGIYDTLKQCALISKSAGGIGVAVSCIRATGSYIAGTNGNSNGLVPM  
RVYNTARYVDQGGNKRPGAFIAYLEPWHLDFEFDLKKNKGKEEQRRARDLFFALWIPDLFMKRVETN  
QDWSLMCPNECPGLDEVWGEEFEKLYASYEKQGRVRKVVKAQQLWYAIIESQTETGTPYMLYKDSCNRK  
SNQQNLGTIKCSNLCTEIVEYTSKDEVAVCNLASLALNMYVTSEHTYDFKKLAEVTKVVRNLNKIIDI  
NYPVPEACLSNKRHRPIGIGVQGLADAFILMRYPFESAEALLNKQIFETIYGALEASCDLAKEQGP  
YETIEGSPVSKGILQYDMWNVPTDLWDWKVLKEKIAYGIRNSLLIAPMPTASTAQILGNNESIEPYT  
SNIYTRRVLGSEFQIVNPHLLKDLTERGLWHEEMKNQIIACNGSIQSIPEIPDDLKQLYKTWWEISQKT  
VLKMAAERGAFIDQSQSLNIHIAEPNYGKLTSMHFGWKQGLKTGMYYLRTRPAANPIQFTLNKEKLD  
KEKVSKEEEKERNTAAMVCSLENRDECLMCGS  
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Recombinant protein using RC200726 also available, [TP300726](#)

Tag:	C-Myc/DDK
Predicted MW:	89.9 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Bioactivity:	Binding assay (PMID: <a href="#">29765556</a> )
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.



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**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**Storage:** Store at -80°C.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** [NP\\_001024](#)

**Locus ID:** 6240

**UniProt ID:** [P23921](#)

**RefSeq Size:** 3117

**Cytogenetics:** 11p15.4

**RefSeq ORF:** 2376

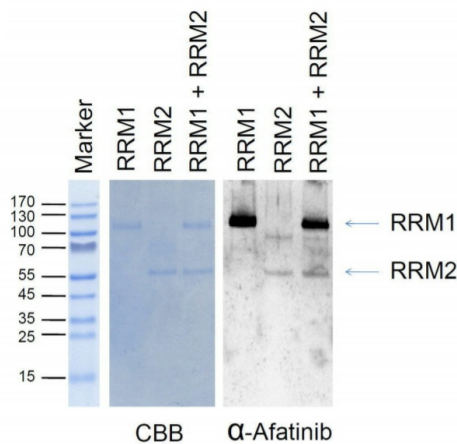
**Synonyms:** R1; RIR1; RR1

**Summary:** This gene encodes the large and catalytic subunit of ribonucleotide reductase, an enzyme essential for the conversion of ribonucleotides into deoxyribonucleotides. A pool of available deoxyribonucleotides is important for DNA replication during S phase of the cell cycle as well as multiple DNA repair processes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2015]

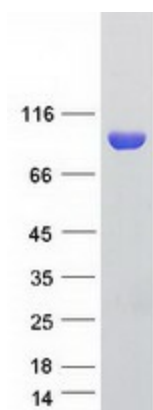
**Protein Families:** Druggable Genome

**Protein Pathways:** Glutathione metabolism, Metabolic pathways, Purine metabolism, Pyrimidine metabolism

### Product images:



Afatinib, a covalent inhibitor of ErbB family, modifies RRM1 and RRM2. Two ug recombinant RRM1 (OriGene [TP300726]) and/or 1 ug RRM2 in the presence of 12.5 uM afatinib were incubated for one hour at 37 C. The reaction product was examined by Coomassie blue G-250 staining and immunoblotting with anti-afatinib antiserum. Figure cited from Oncotarget, PMID: 29765556



Coomassie blue staining of purified RRM1 protein (Cat# [TP300726]). The protein was produced from HEK293T cells transfected with RRM1 cDNA clone (Cat# [RC200726]) using MegaTran 2.0 (Cat# [TT210002]).