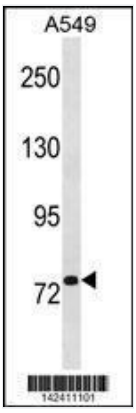
# RRM1 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

| | |
|---|---|
| **Product Name** | RRM1, Polyclonal Antibody |
| **Full Product Name** | RRM1, NT (RRM1, RR1, Ribonucleoside-diphosphate reductase large subunit, Ribonucleoside-diphosphate reductase subunit M1, Ribonucleotide reductase large subunit) |
| **Product Gene Name** | anti-RRM1 antibody |
| **Product Synonym Names** | Anti -RRM1, NT (RRM1, RR1, Ribonucleoside-diphosphate reductase large subunit, Ribonucleoside-diphosphate reductase subunit M1, Ribonucleotide reductase large subunit) |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2, 0.09% sodium azide. |
| **Purity/Purification** | Affinity Purified<br>Purified by Protein A affinity chromatography. |
| **Specificity** | Human |
| **Preparation and Storage** | May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. |
| **Molecular Weight** | 90,070 Da |
| **Chromosome Location** | Chromosome: 11; NC_000011.9 (4115791..4160116). Location: 11p15.5 |
| **OMIM** | 180410 |
| **3D Structure** | ModBase 3D Structure for P23921 |
| **Immunogen** | RRM1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 71-100 amino acids from the N-terminal region of human RRM1. |
| **Product Categories/Family for anti-RRM1 antibody** | Antibodies; Abs to Enzymes; Reductase |
| **Applications Tested/Suitable for anti-RRM1 antibody** | ELISA (EL/EIA), Western Blot (WB) |
| **Application Notes for anti-RRM1 antibody** | Suitable for use in Western Blot, ELISA<br>Dilution: ELISA: 1:1,000<br>Western Blot: 1:100-500 |
| **Related Product Information for anti-RRM1 antibody** | This gene encodes one of two non-identical subunits that constitute ribonucleoside-diphosphate reductase, an enzyme essential for the production of deoxyribonucleotides prior to DNA synthesis in S phase of dividing cells. It is one of several genes located in the imprinted gene domain of 11p15.5, an important tumor-suppressor gene region. Alterations in this region have been associated with the Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocrotical carcinoma, and lung, ovarian, and breast cancer. This gene may play a role in malignancies and disease that involve this region. |
| **Other Notes** | Small volumes of anti-RRM1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

| | |
|---|---|
| **Searchable Terms for RRM1 purchase** | MBS6010921 is an antibody targeting RRM1. Also known as RRM1, NT (RRM1, RR1, Ribonucleoside-diphosphate reductase large subunit, Ribonucleoside-diphosphate reductase subunit M1, Ribonucleotide reductase large subunit). Reactive in Human. Host: Rabbit. |




**Western Blot (WB) of anti-RRM1 antibody**
RRM1 Antibody (N-term) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the RRM1 antibody detected the RRM1 protein (arrow).

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RRM1. It may not necessarily be applicable to this product.

| | |
|---|---|
| **NCBI GI #** | 4506749 |
| **NCBI GeneID** | 6240 |
| **NCBI Accession #** | NP_001024.1 |
| **UniProt Primary Accession #** | P23921 |
| **UniProt Secondary Accession #** | Q9UNN2 |
| **UniProt Related Accession #** | P23921 |
| **GenBank Nucleotide #** | NM_001033.3 |
| **NCBI Official Full Name** | ribonucleoside-diphosphate reductase large subunit |
| **NCBI Official Synonym Full Names** | ribonucleotide reductase M1 |
| **NCBI Official Symbol** | RRM1 |
| **NCBI Official Synonym Symbols** | R1; RR1; RIR1 |
| **UniProt Protein Name** | Ribonucleoside-diphosphate reductase large subunit |
| **UniProt Synonym Protein Names** | Ribonucleoside-diphosphate reductase subunit M1; Ribonucleotide reductase large subunit |
| **UniProt Gene Name** | RRM1 |
| **UniProt Synonym Gene Names** | RR1 |
| **UniProt Entry Name** | RIR1_HUMAN |
| **NCBI Protein Information** | ribonucleoside-diphosphate reductase large subunit; ribonucleotide reductase, R1 subunit; ribonucleotide reductase M1 polypeptide; ribonucleoside-diphosphate reductase subunit M1 |

| | |
|---|---|
| **UniProt Comments for RRM1** | RRM1: an enzyme involved in DNA replication that provides the precursors necessary for DNA synthesis. Catalyzes the biosynthesis of deoxyribonucleotides from the corresponding ribonucleotides. Belongs to the ribonucleoside diphosphate reductase large chain family. Heterodimer of a large and a small subunit. Heterodimer with small subunit RRM2 or RRM2B. The heterodimer with RRM2 has higher catalytic activity than the heterodimer with RRM2B. Under complex allosteric control mediated by deoxynucleoside triphosphates and ATP binding to separate specificity and activation sites on the M1 subunit. The type of nucleotide bound at the specificity site determines substrate preference. It seems probable that ATP makes the enzyme reduce CDP and UDP, dGTP favors ADP reduction and dTTP favors GDP reduction. Stimulated by ATP and inhibited by dATP binding to the activity site. Two distinct regulatory sites have been defined: the specificity site, which controls substrate specificity, and the activity site which regulates overall catalytic activity. A substrate-binding catalytic site, located on M1, is formed only in the presence of the second subunit M2. The level of the enzyme activity is closely correlated with the growth rate of a cell and appears to vary with the cell cycle. Patients with advanced non-small cell lung cancer responded favorably to gemcitabine.<br><br>Protein type: Other Amino Acids Metabolism - glutathione; Nucleotide Metabolism - purine; EC 1.17.4.1; Oxidoreductase; DNA replication; Nucleotide Metabolism - pyrimidine<br><br>Chromosomal Location of Human Ortholog: 11p15.5<br><br>Cellular Component: nucleoplasm; cell projection; cell soma; cytoplasm; nuclear envelope; cytosol<br><br>Molecular Function: protein binding; ATP binding; ribonucleoside-diphosphate reductase activity<br><br>Biological Process: pyrimidine base metabolic process; nucleobase, nucleoside and nucleotide interconversion; retina development in camera-type eye; nucleobase, nucleoside and nucleotide metabolic process; cell proliferation in forebrain; male gonad development; protein heterotetramerization; deoxyribonucleotide biosynthetic process; mitotic cell cycle; response to ionizing radiation; DNA replication |
| **Research Articles on RRM1** | **1.** Report essential roles for ribonucleotide reductase and thymidylate synthase in C-MYC-dependent suppression of senescence in melanoma cells. |
| **Precautions** | All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines. |
| **Disclaimer** | While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice.<br><br>It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information. |
| **Product Note** | Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details. |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures.

**MyBioSource** | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/rrm1/6010921