OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA319300

p53R2 (RRM2B) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	ELISA: 1:3,000, WB: 1 ug/mL, IHC: User Optimized, IF: User Optimized, IP: User Optimized
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Anti-Human RRM2B/p53R2 antibody was prepared by repeated immunizations with a synthetic peptide corresponding to a region near the N-terminus of human RRM2B1 protein. A residue of cysteine was added to facilitate coupling.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	ribonucleotide reductase regulatory TP53 inducible subunit M2B
Database Link:	NP_001165948 Entrez Gene 50484 Human Q7LG56
Synonyms:	MTDPS8A; MTDPS8B; P53R2

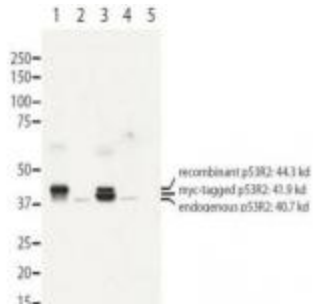
View online »

Note: RRM2B/p53-R2, or p53-inducible ribonucleotide reductase small subunit 2-like protein, is a member of a broad superfamily of ferritin-like di-iron-carboxylate proteins. The RRM2B protein is an enzyme that catalyzes the conversion of ribonucleotides to deoxyribonucleotides that are essential for DNA synthesis, and is found in all eukaryotes. RRM2B plays a pivotal role in cell survival by repairing damaged DNA in a p53/TP53-dependent manner. It supplies deoxyribonucleotides for DNA repair in cells arrested at G1 or G2. It contains an iron-tyrosyl free radical center required for catalysis, and forms an active ribonucleotide reductase (RNR) complex with RRM1 which is expressed both in resting and proliferating cells in response to DNA damage. It is a heterotetramer with a large (RRM1) subunit, and interacts with p53/TP53. The interaction with RRM1 occurs in response to DNA damage and results in its translocation from cytoplasm to nucleus. It is widely expressed at a high level in skeletal muscle and at a weak level in thymus, and expressed in epithelial dysplasias and squamous cell carcinoma. Defects in RRM2B are the cause of encephalomyopathic mitochondrial depletion syndrome with renal tubulopathy (EMDSRT). Mitochondrial DNA depletion syndrome (MDS) is a clinically heterogeneous group of disorders characterized by a reduction in mitochondrial DNA (mtDNA) copy number. The encephalomyopathic form with renal tubulopathy is presented with various combinations of hypotonia, tubulopathy, seizures, respiratory distress, diarrhea, and lactic acidosis.

Protein Families: Druggable Genome, Transmembrane

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

Product images:



WB using Anti-RRM2B antibody shows detection of recombinant (lanes 1 and 3) and endogenous protein (lanes 1 to 4) in whole cell extracts from transfected 293T. Lane 1 contains purified recombinant human p53R2. Lane 2 contains 293T cells transfected with control vector. Lane 3 contains 293T transfected with p53R2-myc. Lane 4: 293T transfected with ScRNA. Lane 5: 293T tranfected with p53R2 SiRNA. Primary antibody was diluted to 1ug/mL and incubated overnight at 4?.