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Immunotag™ p53R2 Polyclonal Antibody

Antibody Specification

Catalog No.	ITT3543
Product Description	Immunotag™ p53R2 Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	p53R2
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from the Internal region of human p53R2.
Specificity	p53R2 Polyclonal Antibody detects endogenous levels of p53R2 protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	RRM2B
Accession No.	Q7LG56 Q6PEE3
Alternate Names	RRM2B; P53R2; Ribonucleoside-diphosphate reductase subunit M2 B; TP53-inducible ribonucleotide reductase M2 B; p53-inducible ribonucleotide reductase small subunit 2-like protein; p53R2

Antibody Specification

Description	ribonucleotide reductase regulatory TP53 inducible subunit M2B(RRM2B) Homo sapiens This gene encodes the small subunit of a p53-inducible ribonucleotide reductase. This heterotetrameric enzyme catalyzes the conversion of ribonucleoside diphosphates to deoxyribonucleoside diphosphates. The product of this reaction is necessary for DNA synthesis. Mutations in this gene have been associated with autosomal recessive mitochondrial DNA depletion syndrome, autosomal dominant progressive external ophthalmoplegia-5, and mitochondrial neurogastrointestinal encephalopathy. Alternatively spliced transcript variants have been described.[provided by RefSeq, Feb 2010],
Cell Pathway/ Category	Purine metabolism,Pyrimidine metabolism,Glutathione metabolism,p53,
Protein Expression	Amygdala,Brain,Eye,Placenta,Salivary gland,
Subcellular Localization	nucleoplasm,cytoplasm,mitochondrion,ribonucleoside-diphosphate reductase complex,integral component of membrane,extracellular exosome,
Protein Function	catalytic activity:2'-deoxyribonucleoside diphosphate + thioredoxin disulfide + H(2)O = ribonucleoside diphosphate + thioredoxin.,cofactor:Binds 2 iron ions per subunit.,disease:Defects in RRM2B are the cause of encephalomyopathic mitochondrial depletion syndrome with renal tubulopathy (EMDSRT) [MIM:612075]. 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.,function:Plays a pivotal role in cell survival by repairing damaged DNA in a p53/TP53-dependent manner. Supplies deoxyribonucleotides for DNA repair in cells arrested at G1 or G2. Contains an iron-tyrosyl free radical center required for catalysis. Forms an active ribonucleotide reductase (RNR) complex with RRM1 which is expressed both in resting and proliferating cells in response to DNA damage.,induction:In response to DNA damage in a wild-type p53/TP53-dependent manner.,pathway:Genetic information processing; DNA replication.,similarity:Belongs to the ribonucleoside diphosphate reductase small chain family.,subcellular location:Translocates from cytoplasm to nucleus in response to DNA damage.,subunit:Heterotetramer with large (RRM1) subunit. Interacts with p53/TP53. Interacts with RRM1 in response to DNA damage.,tissue specificity:Widely expressed at a high level in skeletal muscle and at a weak level in thymus. Expressed in epithelial dysplasias and squamous cell carcinoma.,
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