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RRM2B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17054c

Product Information

Application	WB, E
Primary Accession	Q7LG56
Other Accession	Q6PEE3, Q4R741, NP_001165948.1, NP_001165949.1
Reactivity	Human
Predicted	Monkey, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36901
Calculated MW	40737
Antigen Region	128-157

Additional Information

Gene ID	50484
Other Names	Ribonucleoside-diphosphate reductase subunit M2 B, TP53-inducible ribonucleotide reductase M2 B, p53-inducible ribonucleotide reductase small subunit 2-like protein, p53R2, RRM2B, P53R2
Target/Specificity	This RRM2B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 128-157 amino acids from the Central region of human RRM2B.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RRM2B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RRM2B
Synonyms	P53R2

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.
Cellular Location	Cytoplasm. Nucleus. Note=Translocates from cytoplasm to nucleus in response to DNA damage
Tissue Location	Widely expressed at a high level in skeletal muscle and at a weak level in thymus. Expressed in epithelial dysplasias and squamous cell carcinoma.

Background

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.

References

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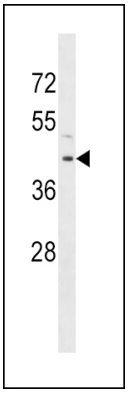
Smith, P., et al. Biochemistry 48(46):11134-11141(2009)
Shaibani, A., et al. Arch. Neurol. 66(8):1028-1032(2009)
Tyynismaa, H., et al. Am. J. Hum. Genet. 85(2):290-295(2009)
Kollberg, G., et al. Neuromuscul. Disord. 19(2):147-150(2009)

Images



RRM2B Antibody (Center) (Cat. #AP17054c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the RRM2B antibody detected the RRM2B protein (arrow).