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RBM4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16990b

Product Information

Application	WB, E
Primary Accession	Q9BWF3
Other Accession	Q8C7Q4, Q4R979, Q3MHX3, NP_002887.2
Reactivity	Human
Predicted	Bovine, Monkey, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36715
Calculated MW	40314
Antigen Region	334-362

Additional Information

Gene ID	5936
Other Names	RNA-binding protein 4, Lark homolog, hLark, RNA-binding motif protein 4, RNA-binding motif protein 4a, RBM4, RBM4A
Target/Specificity	This RBM4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 334-362 amino acids from the C-terminal region of human RBM4.
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	RBM4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RBM4
Synonyms	RBM4A

Function	RNA-binding factor involved in multiple aspects of cellular processes like alternative splicing of pre-mRNA and translation regulation. Modulates alternative 5'-splice site and exon selection. Acts as a muscle cell differentiation-promoting factor. Activates exon skipping of the PTB pre-mRNA during muscle cell differentiation. Antagonizes the activity of the splicing factor PTBP1 to modulate muscle cell-specific exon selection of alpha tropomyosin. Binds to intronic pyrimidine-rich sequence of the TPM1 and MAPT pre-mRNAs. Required for the translational activation of PER1 mRNA in response to circadian clock. Binds directly to the 3'-UTR of the PER1 mRNA. Exerts a suppressive activity on Cap-dependent translation via binding to CU-rich responsive elements within the 3'UTR of mRNAs, a process increased under stress conditions or during myocytes differentiation. Recruits EIF4A1 to stimulate IRES-dependent translation initiation in respons to cellular stress. Associates to internal ribosome entry segment (IRES) in target mRNA species under stress conditions. Plays a role for miRNA- guided RNA cleavage and translation suppression by promoting association of AGO2-containing miRNPs with their cognate target mRNAs. Associates with miRNAs during muscle cell differentiation. Binds preferentially to 5'-CGCGCG[GCA]-3' motif in vitro.
Cellular Location	Nucleus. Nucleus, nucleolus. Nucleus speckle. Cytoplasm. Cytoplasmic granule. Note=Undergoes continuous nucleocytoplasmic shuttling. Upon nuclear import colocalizes with SR proteins in nuclear speckles. Arsenite stress-induced phosphorylation increases its subcellular relocalization from the nucleus to the cytoplasm and to cytoplasmic stress granules (SG) via a p38 MAPK signaling pathway. Primarily localized in nucleus and nucleoli under cell growth conditions and accumulated in the cytoplasm and cytoplasm perinuclear granules upon muscle cell differentiation
Tissue Location	Expressed in the cerebellum. Expressed in neurons and glial cells, including layers II neurons in the frontal cortex and CA1 pyramidal neurons in the hippocampus. Expressed in heart, liver, pancreas, skeletal muscle, placenta, primary fibroblasts and peripheral blood monocytes (at protein level). Ubiquitously expressed. Highly expressed in heart, placenta and skeletal muscle. Weakly expressed in pancreas, kidney, liver, lung and brain.

Background

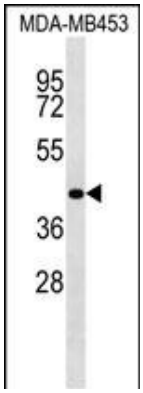
RBM4 may play a role in alternative splice site selection during pre-mRNA processing.

References

Lin, J.C., et al. J. Biol. Chem. 284(50):34658-34665(2009)
Brooks, Y.S., et al. J. Biol. Chem. 284(27):18033-18046(2009)
Markus, M.A., et al. Int. J. Biochem. Cell Biol. 41(4):740-743(2009)
Pfuhl, T., et al. Neurosci. Lett. 444(1):11-15(2008)
Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)

Images

RBM4 Antibody (C-term) (Cat. #AP16990b) western blot analysis in MDA-MB453 cell line lysates (35ug/lane).This demonstrates the RBM4 antibody detected the RBM4 protein (arrow).



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