

## **RBM4 Antibody (C-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16990b

## **Specification**

## **RBM4 Antibody (C-term) - Product Information**

Application WB,E
Primary Accession Q9BWF3

Other Accession <u>Q8C7Q4</u>, <u>Q4R979</u>, <u>Q3MHX3</u>, <u>NP\_002887.2</u>

Reactivity Human

Predicted Bovine, Monkey, Mouse

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 40314
Antigen Region 334-362

## **RBM4 Antibody (C-term) - 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

### **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.

## RBM4 Antibody (C-term) - 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.

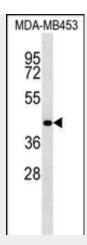
## RBM4 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### RBM4 Antibody (C-term) - 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).

# RBM4 Antibody (C-term) - Background

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

## **RBM4 Antibody (C-term) - 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)