

MBNL1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP20042b

Product Information

Application	WB, E
Primary Accession	Q9NR56
Other Accession	NP_066368.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB42214
Calculated MW	41817
Antigen Region	255-284

Additional Information

Gene ID	4154
Other Names	Muscleblind-like protein 1, Triplet-expansion RNA-binding protein, MBNL1, EXP, KIAA0428, MBNL
Target/Specificity	This MBNL1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 255-284 amino acids from the C-terminal region of human MBNL1.
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	MBNL1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MBNL1
Synonyms	EXP, KIAA0428, MBNL
Function	Mediates pre-mRNA alternative splicing regulation. Acts either as activator

or repressor of splicing on specific pre-mRNA targets. Inhibits cardiac troponin-T (TNNT2) pre-mRNA exon inclusion but induces insulin receptor (IR) pre-mRNA exon inclusion in muscle. Antagonizes the alternative splicing activity pattern of CELF proteins. Regulates the TNNT2 exon 5 skipping through competition with U2AF2. Inhibits the formation of the spliceosome A complex on intron 4 of TNNT2 pre-mRNA. Binds to the stem-loop structure within the polypyrimidine tract of TNNT2 intron 4 during spliceosome assembly. Binds to the 5'-YGCU(U/G)Y-3'consensus sequence. Binds to the IR RNA. Binds to expanded CUG repeat RNA, which folds into a hairpin structure containing GC base pairs and bulged, unpaired U residues. Together with RNA binding proteins RBPMS and RBFOX2, activates vascular smooth muscle cells alternative splicing events (PubMed:[37548402](#)). Regulates NCOR2 alternative splicing (By similarity).

Cellular Location

Nucleus. Cytoplasm. Cytoplasmic granule. Note=Localized with DDX1, TIAL1 and YBX1 in stress granules upon stress (PubMed:18335541). Localized in the cytoplasm of multinucleated myotubes (PubMed:18335541). Colocalizes with nuclear foci of retained expanded-repeat transcripts in myotubes from patients affected by myotonic dystrophy (PubMed:10970838, PubMed:11590133, PubMed:11929853)

Tissue Location

Highly expressed in cardiac, skeletal muscle and during myoblast differentiation. Weakly expressed in other tissues (at protein level). Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.

Background

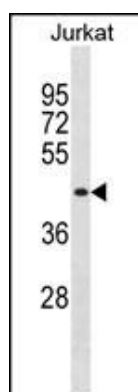
Mediates pre-mRNA alternative splicing regulation. Acts either as activator or repressor of splicing on specific pre-mRNA targets. Inhibits cardiac troponin-T (TNNT2) pre-mRNA exon inclusion but induces insulin receptor (IR) pre-mRNA exon inclusion in muscle. Antagonizes the alternative splicing activity pattern of CELF proteins. Regulates the TNNT2 exon 5 skipping through competition with U2AF2. Inhibits the formation of the spliceosome A complex on intron 4 of TNNT2 pre-mRNA. Binds to the stem-loop structure within the polypyrimidine tract of TNNT2 intron 4 during spliceosome assembly. Binds to the 5'-YGCU(U/G)Y-3'consensus sequence. Binds to the IR RNA. Binds to expanded CUG repeat RNA, which folds into a hairpin structure containing GC base pairs and bulged, unpaired U residues.

References

Sen, S., et al. J. Biol. Chem. 285(33):25426-25437(2010)
Arambula, J.F., et al. Proc. Natl. Acad. Sci. U.S.A. 106(38):16068-16073(2009)
Cardani, R., et al. Neuromuscul. Disord. 19(5):335-343(2009)
Holt, I., et al. Am. J. Pathol. 174(1):216-227(2009)
Teplova, M., et al. Nat. Struct. Mol. Biol. 15(12):1343-1351(2008)

Images

MBNL1 Antibody (C-term) (Cat. #AP20042b) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the MBNL1 antibody detected the MBNL1 protein (arrow).



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.