

# **MBNL1** Antibody

Rabbit mAb Catalog # AP92389

### **Product Information**

Application WB
Primary Accession Q9NR56
Reactivity Human, Mouse
Clonality Monoclonal

Other Names EXP; EXP35; EXP40; EXP42; MBNL; MBNL1;

IsotypeRabbit IgGHostRabbitCalculated MW41817

## **Additional Information**

**Dilution** WB 1:500~1:2000

**Purification** Affinity-chromatography

**Immunogen** A synthesized peptide derived from human MBNL1

**Description** 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.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

#### **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: <u>37548402</u>). Regulates NCOR2 alternative splicing (By similarity).

#### **Cellular Location**

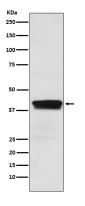
Nucleus. Cytoplasm. Cytoplasmic granule. Note=Localized with DDX1, TIAL1 and YBX1 in stress granules upon stress (PubMed:18335541). Localized in the cytoplasm of multinucleated myotubes (PubMed:18335541). Colocalizes with nuclear foci of retained expanded-repeat transcripts in myotubes from patients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

## **Images**



Western blot analysis of MBNL1 expression in Jurkat cell lysate.

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