

Goat Anti-MBNL1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1657a**Specification**

Goat Anti-MBNL1 Antibody - Product Information

Application	WB
Primary Accession	Q9NR56
Other Accession	NP_997180 , 4154 , 56758 (mouse) , 282635 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Dog, Cow
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	41817

Goat Anti-MBNL1 Antibody - Additional Information**Gene ID** 4154**Other Names**

Muscleblind-like protein 1, Triplet-expansion RNA-binding protein, MBNL1, EXP, KIAA0428, MBNL

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-MBNL1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-MBNL1 Antibody - 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.

Goat Anti-MBNL1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-MBNL1 Antibody - Images



AF1657a (1 µg/ml) staining of HeLa lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-MBNL1 Antibody - References

Muscleblind-like 1 (Mbnl1) promotes insulin receptor exon 11 inclusion via binding to a downstream

evolutionarily conserved intronic enhancer. Sen S, et al. J Biol Chem, 2010 Aug 13. PMID 20519504.
A simple ligand that selectively targets CUG trinucleotide repeats and inhibits MBNL protein binding. Arambula JF, et al. Proc Natl Acad Sci U S A, 2009 Sep 22. PMID 19805260.
Ribonuclear inclusions and MBNL1 nuclear sequestration do not affect myoblast differentiation but alter gene splicing in myotonic dystrophy type 2. Cardani R, et al. Neuromuscul Disord, 2009 May. PMID 19345584.
Muscleblind-like proteins: similarities and differences in normal and myotonic dystrophy muscle. Holt I, et al. Am J Pathol, 2009 Jan. PMID 19095965.
Structural insights into RNA recognition by the alternative-splicing regulator muscleblind-like MBNL1. Teplova M, et al. Nat Struct Mol Biol, 2008 Dec. PMID 19043415.