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MAGOH Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP14367c

Specification

MAGOH Antibody (Center) Blocking Peptide - Product Information

Primary Accession P61326

MAGOH Antibody (Center) Blocking Peptide - Additional Information

Gene ID 4116

Other Names
Protein mago nashi homolog, MAGOH, MAGOHA

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MAGOH Antibody (Center) Blocking Peptide - Protein Information

Name MAGOH

Synonyms MAGOHA

Function
Required for pre-mRNA splicing as component of the spliceosome (PubMed:11991638). Plays a redundant role with MAGOHB as core component of the exon junction complex (EJC) and in the nonsense- mediated decay (NMD) pathway (PubMed:23917022). The EJC is a dynamic structure consisting of core proteins and several peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. The EJC marks the position of the exon-exon junction in the mature mRNA for the gene expression machinery and the core components remain bound to spliced mRNAs throughout all stages of mRNA metabolism thereby influencing downstream processes including nuclear mRNA export, subcellular mRNA localization, translation efficiency and nonsense- mediated mRNA decay (NMD). The MAGOH-RBM8A heterodimer inhibits the ATPase activity of EIF4A3, thereby trapping the ATP-bound EJC core onto spliced mRNA in a stable conformation. The MAGOH-RBM8A heterodimer interacts with the EJC key regulator PYM1 leading to EJC disassembly in the cytoplasm and translation enhancement of EJC-bearing spliced mRNAs by recruiting them to the ribosomal 48S preinitiation complex. Involved in the splicing modulation

of BCL2L1/Bcl-X (and probably other apoptotic genes); specifically inhibits formation of proapoptotic isoforms such as Bcl-X(S); the function is different from the established EJC assembly.

Cellular Location
Nucleus. Nucleus speckle. Cytoplasm. Note=Detected in granule-like structures in the dendroplasm (By similarity). Travels to the cytoplasm as part of the exon junction complex (EJC) bound to mRNA. Colocalizes with the core EJC, ALYREF/THOC4, NXF1 and UAP56 in the nucleus and nuclear speckles (PubMed:19324961). {ECO:0000250, ECO:0000250|UniProtKB:Q27W02, ECO:0000269|PubMed:19324961}

Tissue Location
Ubiquitous.

MAGOH Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

MAGOH Antibody (Center) Blocking Peptide - Images

MAGOH Antibody (Center) Blocking Peptide - Background

Drosophila that have mutations in their mago nashi(grandchildless) gene produce progeny with defects in germplasmassembly and germline development. This gene encodes the mammalianmago nashi homolog. In mammals, mRNA expression is not limited tothe germ plasm, but is expressed ubiquitously in adult tissues andcan be induced by serum stimulation of quiescent fibroblasts.

MAGOH Antibody (Center) Blocking Peptide - References

Gehring, N.H., et al. Cell 137(3):536-548(2009)Muromoto, R., et al. Biochem. Biophys. Res. Commun. 382(1):63-68(2009)Diem, M.D., et al. Nat. Struct. Mol. Biol. 14(12):1173-1179(2007)Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :Andersen, C.B., et al. Science 313(5795):1968-1972(2006)