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MAGOH Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14367c

Product Information

Application	WB, IHC-P, E
Primary Accession	P61326
Other Accession	Q27W02, P61327, Q566Y8, P50594, Q3ZBV3, Q9CQL1, Q96A72, Q0VC92, NP_002361.1
Reactivity	Human
Predicted	Bovine, Mouse, Chicken, Zebrafish, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34205
Calculated MW	17164
Antigen Region	46-74

Additional Information

Gene ID	4116
Other Names	Protein mago nashi homolog, MAGOH, MAGOHA
Target/Specificity	This MAGOH antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 46-74 amino acids from the Central region of human MAGOH.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	MAGOH Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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 pre-initiation 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.

Background

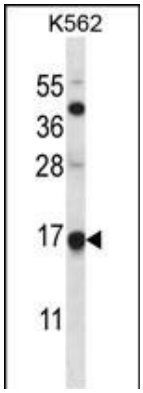
Drosophila that have mutations in their mago nashi (grandchildless) gene produce progeny with defects in germplasm assembly and germline development. This gene encodes the mammalian mago nashi homolog. In mammals, mRNA expression is not limited to the germ plasm, but is expressed ubiquitously in adult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

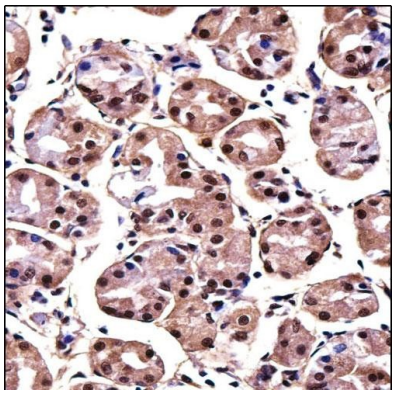
References

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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)

Images

MAGOH Antibody (Center) (Cat. #AP14367c) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the MAGOH antibody detected the MAGOH protein (arrow).





MAGOH Antibody (Center) (AP14367c)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of MAGOH Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

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