

## MAGOH Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP14367c

### Specification

## **MAGOH Antibody (Center) - Product Information**

Application Primary Accession Other Accession

Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region WB, IHC-P,E <u>P61326</u> <u>O27W02</u>, <u>P61327</u>, <u>O566Y8</u>, <u>P50594</u>, <u>O3ZBV3</u>, <u>O9CQL1</u>, <u>O96A72</u>, <u>O0VC92</u>, <u>NP\_002361.1</u> Human Bovine, Mouse, Chicken, Zebrafish, Rat Rabbit Polyclonal Rabbit IgG 17164 46-74

## MAGOH Antibody (Center) - 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~~1:10~50 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.

# MAGOH Antibody (Center) - Protein Information



## Name MAGOH

## Synonyms MAGOHA

Function Required for pre-mRNA splicing as component of the spliceosome (PubMed:<u>11991638</u>). 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 nonsensemediated 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 EIC-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.

### **MAGOH Antibody (Center) - Protocols**

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

- Western Blot
- <u>Blocking Peptides</u>
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### MAGOH Antibody (Center) - 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.

# MAGOH Antibody (Center) - 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.

# MAGOH Antibody (Center) - 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)