SANTA CRUZ BIOTECHNOLOGY, INC.

MAGOH (21B12): sc-56724

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MAGOH, the human homolog of *Drosophila* mago nashi, is required for embryo development. MAGOH is ubiquitously expressed in adult tissues. It has an unusual structure consisting of an extremely flat, six-stranded anti-parallel β sheet packed next to two helices. MAGOH interacts with the Y14 protein to form a complex that plays a crucial role in postsplicing processing (including nuclear export and cytoplasmic localization of the mRNA) and in the nonsense-mediated mRNA decay (NMD) surveillance process. The MAGOH-Y14 complex remains persistently associated in the same position on the mRNA after its export to the cytoplasm and requires translation of the mRNA for removal. This complex may illustrate the mechanism of the pre-mRNA splicing machinery for forming a stable exon-exon junction complex-mRNA at splice junctions.

CHROMOSOMAL LOCATION

Genetic locus: MAGOH (human) mapping to 1p32.3; Magoh (mouse) mapping to 4 C7.

SOURCE

MAGOH (21B12) is a mouse monoclonal antibody raised against full-length MAGOH of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAGOH (21B12) is available conjugated to agarose (sc-56724 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-56724 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-56724 PE), fluorescein (sc-56724 FITC), Alexa Fluor® 488 (sc-56724 AF488), Alexa Fluor® 546 (sc-56724 AF546), Alexa Fluor® 594 (sc-56724 AF594) or Alexa Fluor® 647 (sc-56724 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-56724 AF680) or Alexa Fluor® 790 (sc-56724 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

MAGOH (21B12) is recommended for detection of MAGOH of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for MAGOH siRNA (h): sc-60978, MAGOH siRNA (m): sc-60979, MAGOH shRNA Plasmid (h): sc-60978-SH, MAGOH shRNA Plasmid (m): sc-60979-SH, MAGOH shRNA (h) Lentiviral Particles: sc-60978-V and MAGOH shRNA (m) Lentiviral Particles: sc-60979-V.

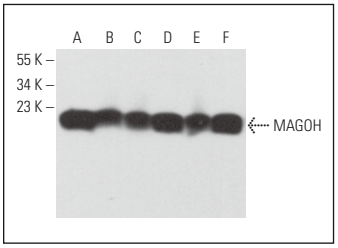
Molecular Weight of MAGOH: 17 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Raji whole cell lysate: sc-364236 or A-431 whole cell lysate: sc-2201.

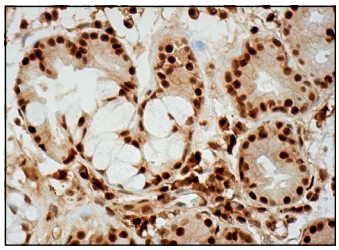
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



MAGOH (21B12): sc-56724. Western blot analysis of MAGOH expression in Raji (**A**), PC-3 (**B**), HeLa (**C**), Jurkat (**D**), A-431 (**E**) and K-562 (**F**) whole cell lysates.



MAGOH (21B12): sc-56724. Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing nuclear and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Price, A.M., et al. 2012. Analysis of Epstein-Barr virus-regulated host gene expression changes through primary B-cell outgrowth reveals delayed kinetics of latent membrane protein 1-mediated NFκB activation. J. Virol. 86: 11096-11106.
2. Geibler, V., et al. 2013. The RNA helicase Ddx5/p68 binds to hUpf3 and enhances NMD of Ddx17/p72 and Smg5 mRNA. Nucleic Acids Res. 41: 7875-7888.
3. Homa, N.J., et al. 2013. Epstein-Barr virus induces global changes in cellular mRNA isoform usage that are important for the maintenance of latency. J. Virol. 87: 12291-12301.
4. Li, M., et al. 2019. Identification of antiviral roles for the exon-junction complex and nonsense-mediated decay in flaviviral infection. Nat. Microbiol. 4: 985-995.
5. Kwon, O.S., et al. 2021. Exon junction complex dependent mRNA localization is linked to centrosome organization during ciliogenesis. Nat. Commun. 12: 1351.
6. Cho, H., et al. 2022. AKT constitutes a signal-promoted alternative exon-junction complex that regulates nonsense-mediated mRNA decay. Mol. Cell 82: 2779-2796.e10.
7. Soederberg, A., et al. 2022. MAGOH and MAGOHB knockdown in melanoma cells decreases nonsense-mediated decay activity and promotes apoptosis via upregulation of GADD45A. Cells 11: 3859.
8. Rambout, X., et al. 2023. PGC-1α senses the CBC of pre-mRNA to dictate the fate of promoter-proximally paused RNAPII. Mol. Cell 83: 186-202.e11.

RESEARCH USE

For research use only, not for use in diagnostic procedures.