

hnRNP M (5-RE36): sc-134360

BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription, pre-mRNA processing as well as mature mRNA transport to the cytoplasm and translation. They also bind heterogeneous nuclear RNA (hnRNA), which are the transcripts produced by RNA polymerase II. There are approximately 20 known hnRNP proteins, and their complexes are the major constituents of the spliceosome. The majority of hnRNP proteins components are localized to the nucleus; however some shuttle between the nucleus and the cytoplasm, such as hnRNP E1 and E2. hnRNP E1 may function in the cytoplasm as a translational regulatory protein, while hnRNP E2 stabilizes mRNA to enhance polioviral mRNA translation. hnRNP M is involved in pre-mRNA splicing and in stress-induced transient splicing arrest.

CHROMOSOMAL LOCATION

Genetic locus: HNRNPM (human) mapping to 19p13.2; Hnrnp (mouse) mapping to 17 B1.

SOURCE

hnRNP M (5-RE36) is a mouse monoclonal antibody raised against recombinant hnRNP M protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

hnRNP M (5-RE36) is recommended for detection of hnRNP M 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for hnRNP M siRNA (h): sc-38286, hnRNP M siRNA (m): sc-38287, hnRNP M shRNA Plasmid (h): sc-38286-SH, hnRNP M shRNA Plasmid (m): sc-38287-SH, hnRNP M shRNA (h) Lentiviral Particles: sc-38286-V and hnRNP M shRNA (m) Lentiviral Particles: sc-38287-V.

Molecular Weight of hnRNP M: 72/74 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

STORAGE

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

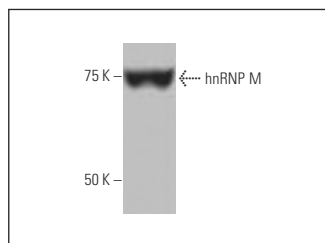
RESEARCH USE

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

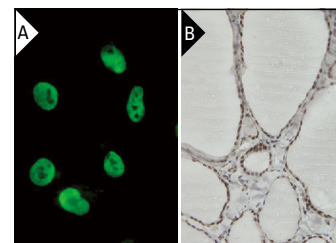
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



hnRNP M (5-RE36): sc-134360. Western blot analysis of hnRNP M expression in Hep G2 whole cell lysate.



hnRNP M (5-RE36): sc-134360. Immunofluorescence staining of methanol-fixed Hep G2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human thyroid nodular goiter tissue showing nuclear localization (B).

SELECT PRODUCT CITATIONS

- Lee, Y.B., et al. 2013. Hexanucleotide repeats in ALS/FTD form length-dependent RNA foci, sequester RNA binding proteins, and are neurotoxic. *Cell Rep.* 5: 1178-1186.
- Remenyi, J., et al. 2016. The loop structure and the RNA helicase p72/DDX17 influence the processing efficiency of the mice miR-132. *Sci. Rep.* 6: 22848.
- Van Rechem, C., et al. 2020. The lysine demethylase KDM4A controls the cell-cycle expression of replicative canonical histone genes. *Biochim. Biophys. Acta Gene Regul. Mech.* 1863: 194624.
- Zhu, G.Q., et al. 2022. Targeting HNRNPM inhibits cancer stemness and enhances antitumor immunity in Wnt-activated hepatocellular carcinoma. *Cell. Mol. Gastroenterol. Hepatol.* 13: 1413-1447.
- Yoshimoto, R., et al. 2023. 4.5SH RNA counteracts deleterious exonization of SINE B1 in mice. *Mol. Cell* 83: 4479-4493.e6.



See **hnRNP M1-4 (1D8): sc-20002** for hnRNP M1-4 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.