SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP M (A-12): sc-515008

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The Power to Question

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.

REFERENCES

1. Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. Gene 166: 323-327.
2. Siomi, H., et al. 1995. A nuclear localization domain in the hnRNP A1 protein. J. Cell Biol. 129: 551-560.
3. Gattoni, R., et al. 1996. The human hnRNP-M proteins: structure and relation with early heat shock-induced splicing arrest and chromosome mapping. Nucleic Acids Res. 24: 2535-2542.

CHROMOSOMAL LOCATION

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

SOURCE

hnRNP M (A-12) is a mouse monoclonal antibody raised against amino acids 396-592 mapping near the C-terminus of hnRNP M of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

hnRNP M (A-12) is recommended for detection of hnRNP M of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

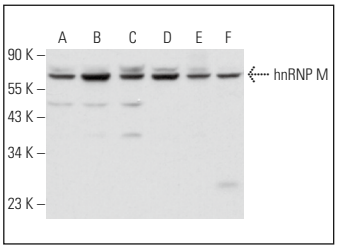
Molecular Weight of hnRNP M: 72/74 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

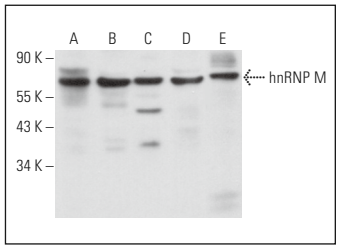
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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.

DATA



hnRNP M (A-12): sc-515008. Western blot analysis of hnRNP M expression in HeLa (**A**), Jurkat (**B**), K-562 (**C**), NIH/3T3 (**D**), RAW 264.7 (**E**) and SP2/0 (**F**) whole cell lysates.



hnRNP M (A-12): sc-515008. Western blot analysis of hnRNP M expression in PC-12 (**A**), NIH/3T3 (**B**), HeLa (**C**) and U-251-MG (**D**) whole cell lysates and mouse eye tissue extract (**E**).

SELECT PRODUCT CITATIONS

1. Toki, N., et al. 2020. SINEUP long non-coding RNA acts via PTBP1 and HNRNPK to promote translational initiation assemblies. Nucleic Acids Res. 48: 11626-11644.
2. Ferino, A., et al. 2021. hnRNPA1/UP1 unfolds KRAS G-quadruplexes and feeds a regulatory axis controlling gene expression. ACS Omega 6: 34092-34106.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

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.