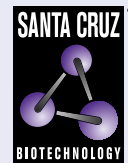


hnRNP M1-4 (1D8): sc-20002



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.

CHROMOSOMAL LOCATION

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

SOURCE

hnRNP M1-4 (1D8) is a mouse monoclonal antibody derived from lymphoid cell obtained from Balb/c and with myeloma parent SP2/O (immunogen is a fusion protein) of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

hnRNP M1-4 (1D8) is available conjugated to agarose (sc-20002 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20002 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-20002 PE), fluorescein (sc-20002 FITC), Alexa Fluor® 488 (sc-20002 AF488), Alexa Fluor® 546 (sc-20002 AF546), Alexa Fluor® 594 (sc-20002 AF594) or Alexa Fluor® 647 (sc-20002 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-20002 AF680) or Alexa Fluor® 790 (sc-20002 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

hnRNP M1-4 (1D8) is recommended for detection of hnRNP M1, hnRNP M2, hnRNP M3 and hnRNP M4 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). hnRNP M1-4 (1D8) is also recommended for detection of hnRNP M1, hnRNP M2, hnRNP M3 and hnRNP M4 in additional species, including rabbit, bovine and porcine.

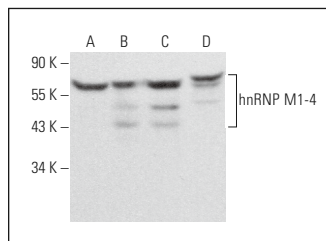
Suitable for use as control antibody for hnRNP M siRNA (h): sc-38286, hnRNP M siRNA (m): sc-38287, hnRNP M shRNA Plasmid (h): sc-38286-SH, hnRNP M shRNA Plasmid (m): sc-38287-SH, hnRNP M shRNA (h) Lentiviral Particles: sc-38286-V and hnRNP M shRNA (m) Lentiviral Particles: sc-38287-V.

Molecular Weight of hnRNP M1-4: 72/74 kDa.

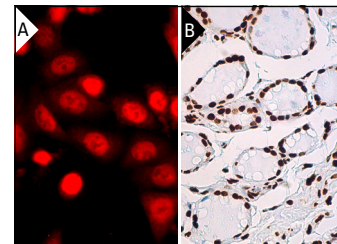
STORAGE

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

DATA



hnRNP M1-4 (1D8): sc-20002. Western blot analysis of hnRNP M1-4 expression in HeLa (A), Jurkat (B) and K-562 (C) whole cell lysates and NIH/3T3 nuclear extract (D).



hnRNP M1-4 (1D8) Alexa Fluor® 594: sc-20002 AF594. Direct immunofluorescence staining of formalin-fixed SW480 cells showing nuclear localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (A). hnRNP M1-4 (1D8): sc-20002. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Chen, Y., et al. 2007. Proteomic identification of proteins associated with the osmoregulatory transcription factor TonEBP/OREBP: functional effects of HSP 90 and PARP-1. *Am. J. Physiol. Renal Physiol.* 292: F981-F992.
- Li, H., et al. 2009. Identification of mRNA binding proteins that regulate the stability of LDL receptor mRNA through AU-rich elements. *J. Lipid Res.* 50: 820-831.
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- Luo, Z., et al. 2012. Engagement of heterogeneous nuclear ribonucleoprotein M with listeriolysin O induces type I interferon expression and restricts *Listeria monocytogenes* growth in host cells. *Immunobiology* 217: 972-981.
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- Flather, D., et al. 2018. Exploitation of nuclear functions by human rhinovirus, a cytoplasmic RNA virus. *PLoS Pathog.* 14: e1007277.
- Wei, Y.L., et al. 2019. Kinesin-14 motor protein KIFC1 participates in DNA synthesis and chromatin maintenance. *Cell Death Dis.* 10: 402.
- Li, W., et al. 2020. Biophysical properties of AKAP95 protein condensates regulate splicing and tumorigenesis. *Nat. Cell Biol.* 22: 960-972.

RESEARCH USE

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

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