

# hnRNP M (C-15): sc-16546

## 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.
4. Ostareck, D.H., et al. 1997. mRNA silencing in erythroid differentiation: hnRNP K and hnRNP E1 regulate 15-lipoxygenase translation from the 3' end. *Cell* 89: 597-606.
5. Kim, J.H., et al. 2000. Protein-protein interaction among hnRNPs shuttling between nucleus and cytoplasm. *J. Mol. Biol.* 298: 395-405.
6. Melcak, I., et al. 2000. Nuclear pre-mRNA compartmentalization: trafficking of released transcripts to splicing factor reservoirs. *Mol. Biol. Cell* 11: 497-510.
7. Mahe, D., et al. 2000. Spatiotemporal regulation of hnRNP M and 2H9 gene expression during mouse embryonic development. *Biochim. Biophys. Acta* 1492: 414-424.

## CHROMOSOMAL LOCATION

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

## SOURCE

hnRNP M (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of hnRNP M of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16546 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

hnRNP M (C-15) 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), 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).

hnRNP M (C-15) is also recommended for detection of hnRNP M in additional species, including equine, canine, bovine, porcine and avian.

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.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **hnRNP M1-4 (1D8): sc-20002** or **hnRNP M3/4 (2A6): sc-20001**, our highly recommended monoclonal alternatives to hnRNP M (C-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **hnRNP M1-4 (1D8): sc-20002**.