

# hnRNP H3 (D-12): sc-132304

## BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription and pre-mRNA processing, as well as mature mRNA transport to the cytoplasm and translation. hnRNPs 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 are localized to the nucleus, however some shuttle between the nucleus and the cytoplasm. HnRNPs F and H are highly related factors that preferentially associate with poly(rG) regions on RNA. hnRNP H3, also known as hnRNP 2H9, is a 346 amino acid protein involved in RNA processing, as well as early heat shock-inducing splicing arrest. HnRNP H3 contains two RNA recognition motif (RRM) domains, which include locations for binding single-stranded RNA. HnRNP H3 is expressed as six isoforms generated by alternative splicing of the pre-mRNA.

## REFERENCES

1. Mahe, D., et al. 1997. Cloning of human 2H9 heterogeneous nuclear ribonucleoproteins. Relation with splicing and early heat shock-induced splicing arrest. *J. Biol. Chem.* 272: 1827-1836.
2. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602324. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Honore, B. 2000. The hnRNP 2H9 gene, which is involved in the splicing reaction, is a multiply spliced gene. *Biochim. Biophys. Acta* 1492: 108-119.
4. Mahe, D., et al. 2000. Spatiotemporal regulation of hnRNP M and 2H9 gene expression during mouse embryonic development. *Biochim. Biophys. Acta* 1492: 414-424.
5. Yagüe, J., et al. 2000. A post-translational modification of nuclear proteins, N<sup>G</sup>,N<sup>G</sup>-dimethyl-Arg, found in a natural HLA class I peptide ligand. *Protein Sci.* 9: 2210-2217.

## CHROMOSOMAL LOCATION

Genetic locus: HNRNP3 (human) mapping to 10q21.3; Hnrnp3 (mouse) mapping to 10 B4.

## SOURCE

hnRNP H3 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of hnRNP H3 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-132304 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

hnRNP H3 (D-12) is recommended for detection of hnRNP H3 isoforms 1, 2, 3, 4, 5 and 6 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with hnRNP H1 or hnRNP H2.

Suitable for use as control antibody for hnRNP H3 siRNA (h): sc-90762, hnRNP H3 siRNA (m): sc-146063, hnRNP H3 shRNA Plasmid (h): sc-90762-SH, hnRNP H3 shRNA Plasmid (m): sc-146063-SH, hnRNP H3 shRNA (h) Lentiviral Particles: sc-90762-V and hnRNP H3 shRNA (m) Lentiviral Particles: sc-146063-V.

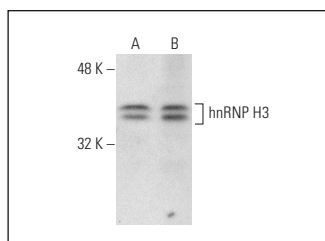
Molecular Weight of hnRNP H3: 37 kDa.

Positive Controls: BJAB nuclear extract: sc-2145, K-562 nuclear extract: sc-2130 or Jurkat nuclear extract: sc-2132.

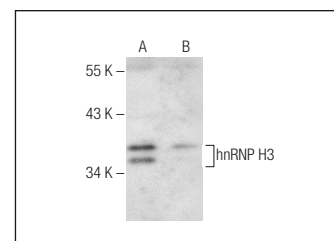
## RECOMMENDED SECONDARY REAGENTS

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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



hnRNP H3 (D-12): sc-132304. Western blot analysis of hnRNP H3 expression in Ramos (A) and K-562 (B) nuclear extracts.



hnRNP H3 (D-12): sc-132304. Western blot analysis of hnRNP H3 expression in BJAB (A) and Jurkat (B) nuclear extracts.

## RESEARCH USE

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

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Try **hnRNP H3 (D-4): sc-376416**, our highly recommended monoclonal alternative to hnRNP H3 (D-12).