

# hnRNP A2/B1 (F-16): sc-10035

## 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. 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 are localized to the nucleus; however some shuttle between the nucleus and the cytoplasm. The A/B subfamily of hnRNPs include A1, A2/B1, A3 and A0, and in *Xenopus*, hnRNP A1, A2 and A3 are ubiquitously expressed throughout development as well as in adult tissues. hnRNP A1 and A2/B1 regulate the processing of pre-mRNA by directly antagonizing the association of various splicing factors and by influencing the splice site selection on pre-mRNA. The hnRNP A0 gene is distinct from the other A/B family members, and it encodes a low-abundance protein, which is implicated in mRNA stability.

## CHROMOSOMAL LOCATION

Genetic locus: HNRNPA2B1 (human) mapping to 7p15.2; Hnrnpa2b1 (mouse) mapping to 6 B3.

## SOURCE

hnRNP A2/B1 (F-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of hnRNP A2/B1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10035 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

hnRNP A2/B1 (F-16) is recommended for detection of hnRNP A2/B1 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), flow cytometry (1 µg per 1 x 10<sup>6</sup> cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

hnRNP A2/B1 (F-16) is also recommended for detection of hnRNP A2/B1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for hnRNP A2/B1 siRNA (h): sc-43841, hnRNP A2/B1 siRNA (m): sc-43842, hnRNP A2/B1 shRNA Plasmid (h): sc-43841-SH, hnRNP A2/B1 shRNA Plasmid (m): sc-43842-SH, hnRNP A2/B1 shRNA (h) Lentiviral Particles: sc-43841-V and hnRNP A2/B1 shRNA (m) Lentiviral Particles: sc-43842-V.

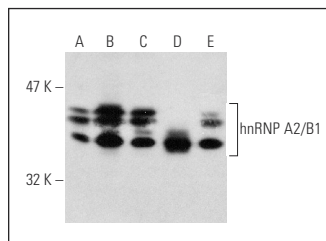
Molecular Weight of hnRNP A2/B1: 36/38 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, THP-1 nuclear extract: sc-24963 or MEG-01 nuclear extract: sc-2150.

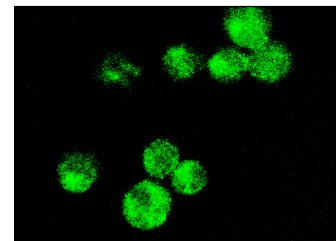
## STORAGE

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

## DATA



hnRNP A2/B1 (F-16): sc-10035. Western blot analysis of hnRNP A2/B1 expression in HeLa (A), K-562 (B), MEG-01 (C), THP-1 (D) and Jurkat (E) nuclear extracts.



hnRNP A2/B1 (F-16): sc-10035. Immunofluorescence staining of methanol-fixed K-562 cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

- Lee, H.H., et al. 2004. Nuclear efflux of heterogeneous nuclear ribonucleoprotein C1/C2 in apoptotic cells: a novel nuclear export dependent on Rho-associated kinase activation. *J. Cell Sci.* 117: 5579-5589.
- Barker, S., et al. 2005. Identification of mammalian proteins cross-linked to DNA by ionizing radiation. *J. Biol. Chem.* 280: 33826-33838.
- Cristea, I.M. and Carroll, J.W.N. 2006. Tracking and elucidating alphavirus-host protein interactions. *J. Biol. Chem.* 281: 30269-30278.
- Zhu, Y.F., et al. 2006. Proteomic analysis of effect of hyperthermia on spermatogenesis in adult male mice. *J. Proteome Res.* 5: 2217-2225.
- Hara, T., et al. 2007. Mass spectrometry analysis of the native protein complex containing actinin-4 in prostate cancer cells. *Mol. Cell. Proteomics* 6: 479-491.
- Xue, Y., et al. 2008. Proteomic dissection of agonist-specific TLR-mediated inflammatory responses on macrophages at subcellular resolution. *J. Proteome Res.* 7: 3180-3193.
- Tauler, J., et al. 2010. hnRNP A2/B1 modulates epithelial-mesenchymal transition in lung cancer cell lines. *Cancer Res.* 70: 7137-7147.
- Huang, P.R., et al. 2010. Telomeric DNA-binding activities of heterogeneous nuclear ribonucleoprotein A3 *in vitro* and *in vivo*. *Biochim. Biophys. Acta* 1803: 1164-1174.

## 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.