

hnRNP A0 (G-17): sc-16509

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 protein components are localized to the nucleus; however, some shuttle between the nucleus and the cytoplasm. hnRNP I, also designated polypyrimidine tract-binding protein (PTB), and its homolog hnRNP L, bind to the 3' end of introns to modulate alternative splicing mechanisms of pre-mRNAs in normal cells and the translation of several viruses, including hepatitis C virus (HCV). The human hnRNP I gene maps to chromosome 19p13.3 and encodes a protein that is localized in the nucleoplasm. hnRNP L, like hnRNP I, is also localized in the nucleoplasm.

REFERENCES

1. Good, P.J., et al. 1993. Three new members of the RNP protein family in *Xenopus*. *Nucleic Acids Res.* 21: 999-1006.
2. Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. *Gene* 166: 323-337.
3. Siomi, H., et al. 1995. A nuclear localization domain in the hnRNP A1 protein. *J. Cell Biol.* 129: 551-560.
4. Myer, V.E., et al. 1995. Isolation and characterization of a novel, low abundance hnRNP protein: A0. *RNA* 1: 171-182.
5. Hanamura, A., et al. 1998. Regulated tissue-specific expression of antagonistic pre-mRNA splicing factors. *RNA* 4: 430-444.

CHROMOSOMAL LOCATION

Genetic locus: HNRNPA0 (human) mapping to 5q31.2; Hnrnpa0 (mouse) mapping to 13 B1.

SOURCE

hnRNP A0 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of hnRNP A0 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-16509 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.

PROTOCOLS

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

APPLICATIONS

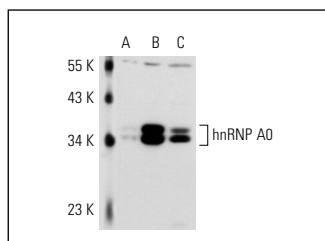
hnRNP A0 (G-17) is recommended for detection of hnRNP A0 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

hnRNP A0 (G-17) is also recommended for detection of hnRNP A0 in additional species, including canine, bovine, porcine and avian.

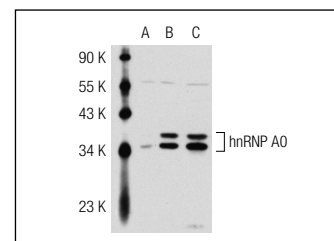
Suitable for use as control antibody for hnRNP A0 siRNA (h): sc-38258, hnRNP A0 siRNA (m): sc-38259, hnRNP A0 shRNA Plasmid (h): sc-38258-SH, hnRNP A0 shRNA Plasmid (m): sc-38259-SH, hnRNP A0 shRNA (h) Lentiviral Particles: sc-38258-V and hnRNP A0 shRNA (m) Lentiviral Particles: sc-38259-V.

Positive Controls: hnRNP A0 (h): 293 Lysate: sc-112305 or HeLa whole cell lysate: sc-2200.

DATA



hnRNP A0 (G-17): sc-16509. Western blot analysis of hnRNP A0 expression in non-transfected 293T: sc-110760 (A), human hnRNP A0 transfected 293T: sc-112305 (B) and HeLa (C) whole cell lysates.



hnRNP A0 (G-17): sc-16509. Western blot analysis of hnRNP A0 expression in non-transfected 293T: sc-117752 (A), human hnRNP A0 transfected 293T: sc-114745 (B) and HeLa (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tong, X., et al. 2009. Enhancement of p53 expression in keratinocytes by the bioflavonoid apigenin is associated with RNA-binding protein HuR. *Mol. Carcinog.* 48: 118-129.
2. Galán, C., et al. 2009. Host cell proteins interacting with the 3' end of TGEV coronavirus genome influence virus replication. *Virology* 391: 304-314.
3. Fernau, N.S., et al. 2010. Role of HuR and p38^{MAPK} in ultraviolet B-induced post-transcriptional regulation of COX-2 expression in the human keratinocyte cell line HaCaT. *J. Biol. Chem.* 285: 3896-3904.

RESEARCH USE

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