

hnRNP L (D-17): sc-16550

BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription, pre-mRNA processing and 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. 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 encodes a protein that is localized in the nucleoplasm. hnRNP L, like hnRNP I, is also localized in the nucleoplasm.

REFERENCES

- Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. *Gene* 166: 323-337.
- Siomi, H. and Dreyfuss, G. 1995. A nuclear localization domain in the hnRNP A1 protein. *J. Cell Bio.* 129: 551-560.
- Perez, I., et al. 1997. Multiple RRM domains contribute to RNA binding specificity and affinity for polypyrimidine tract binding protein. *Biochemistry* 36: 11881-11890.
- Hahm, B., et al. 1998. Heterogeneous nuclear ribonucleoprotein L interacts with the 3' border of the internal ribosomal entry site of hepatitis C virus. *J. Virol.* 72: 8782-8788.
- Hahm, B., et al. 1998. Polypyrimidine tract-binding protein interacts with HnRNP L. *FEBS Lett.* 425: 401-406.
- Li, H.P., et al. 1999. Polypyrimidine tract-binding protein binds to the leader RNA of mouse hepatitis virus and serves as a regulator of viral transcription. *J. Virol.* 73: 772-777.
- Kim, J.H., et al. 2000. Protein-protein interaction among hnRNPs shuttling between nucleus and cytoplasm. *J. Mol. Biol.* 298: 395-405.
- Melcak, I., et al. 2000. Nuclear pre-mRNA compartmentalization: trafficking of released transcripts to splicing factor reservoirs. *Mol. Biol. Cell* 11: 497-510.

CHROMOSOMAL LOCATION

Genetic locus: HNRNPL (human) mapping to 19q13.2; Hnrnp1 (mouse) mapping to 7 A3.

SOURCE

hnRNP L (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of hnRNP L of human origin.

RESEARCH USE

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

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-16550 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

hnRNP L (D-17) is recommended for detection of hnRNP L 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).

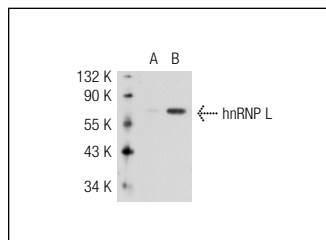
hnRNP L (D-17) is also recommended for detection of hnRNP L in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for hnRNP L siRNA (h): sc-38284, hnRNP L siRNA (m): sc-38285, hnRNP L shRNA Plasmid (h): sc-38284-SH, hnRNP L shRNA Plasmid (m): sc-38285-SH, hnRNP L shRNA (h) Lentiviral Particles: sc-38284-V and hnRNP L shRNA (m) Lentiviral Particles: sc-38285-V.

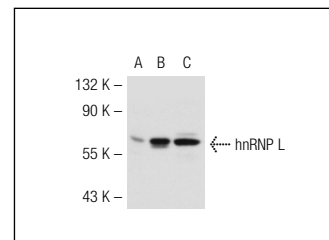
Molecular Weight of hnRNP L: 68 kDa.

Positive Controls: hnRNP L (h): 293T Lysate: sc-117301, hnRNP L (m): 293T Lysate: sc-126967 or SHP-77 whole cell lysate.

DATA



hnRNP L (D-17): sc-16550. Western blot analysis of hnRNP L expression in non-transfected: sc-117752 (A) and human hnRNP L transfected: sc-117301 (B) 293T whole cell lysates.



hnRNP L (D-17): sc-16550. Western blot analysis of hnRNP L expression in non-transfected: sc-117752 (A) and mouse hnRNP L transfected: sc-126967 (B) 293T whole cell lysates and Jurkat nuclear extract (C).

SELECT PRODUCT CITATIONS

- Cheli, Y., et al. 2006. hnRNP L regulates differences in expression of mouse integrin $\alpha 2\beta 1$. *Blood* 107: 4391-4398.
- 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.

STORAGE

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