SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP L (F-9): sc-393737

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The Power to Question

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. 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

1. Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. Gene 166: 323-337.
2. Siomi, H., et al. 1995. A nuclear localization domain in the hnRNP A1 protein. J. Cell Biol. 129: 551-560.
3. Perez, I., et al. 1997. Multiple RRMs contribute to RNA binding specificity and affinity for polypyrimidine tract binding protein. Biochemistry 36: 11881-11890.
4. 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.
5. Hahm, B., et al. 1998. Polypyrimidine tract-binding protein interacts with hnRNP L. FEBS Lett. 425: 401-406.

CHROMOSOMAL LOCATION

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

SOURCE

hnRNP L (F-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 27-49 at the N-terminus of hnRNP L of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393737 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

hnRNP L (F-9) is recommended for detection of hnRNP L of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 (F-9) is also recommended for detection of hnRNP L in additional species, including canine and bovine.

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.

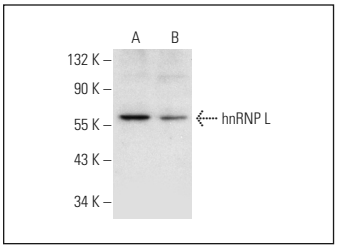
Molecular Weight of hnRNP L: 68 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, HL-60 whole cell lysate: sc-2209 or MEG-01 nuclear extract: sc-2150.

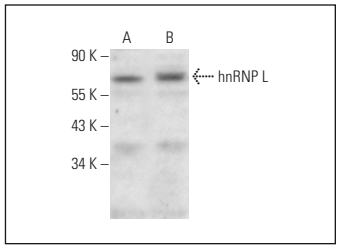
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



hnRNP L (F-9): sc-393737. Western blot analysis of hnRNP L expression in MEG-01 (**A**) and HeLa (**B**) nuclear extracts.



hnRNP L (F-9): sc-393737. Western blot analysis of hnRNP L expression in MEG-01 (**A**) and HL-60 (**B**) whole cell lysates.

RESEARCH USE

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

CONJUGATES

See **hnRNP L (4D11): sc-32317** for hnRNP L antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.