

hnRNP L (D-5): sc-48391

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. 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.

CHROMOSOMAL LOCATION

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

SOURCE

hnRNP L (D-5) is a mouse monoclonal antibody raised against amino acids 257-334 of hnRNP L of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 (D-5) 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), immunohistochemistry (including paraffin-embedded sections) (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-5) is also recommended for detection of hnRNP L in additional species, including equine, 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.

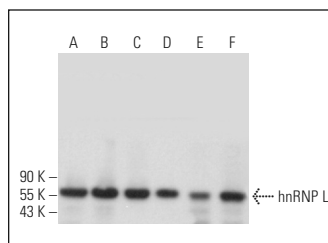
Molecular Weight of hnRNP L: 68 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, MCF7 whole cell lysate: sc-2206 or Sol8 cell lysate: sc-2249.

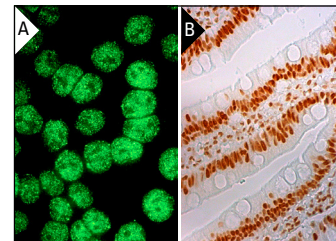
RESEARCH USE

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

DATA



hnRNP L (D-5): sc-48391. Western blot analysis of hnRNP L expression in RAW 264.7 (A), MEG-01 (B), MCF7 (C), Hep G2 (D), Sol8 (E) and 3611-RF (F) whole cell lysates.



hnRNP L (D-5): sc-48391. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Mondal, S., et al. 2016. Functional requirements of AID's higher order structures and their interaction with RNA-binding proteins. *Proc. Natl. Acad. Sci. USA* 113: E1545-E1554.
- Fei, T., et al. 2017. Genome-wide CRISPR screen identifies HNRNPL as a prostate cancer dependency regulating RNA splicing. *Proc. Natl. Acad. Sci. USA* 114: E5207-E5215.
- Cao, L., et al. 2019. The nuclear matrix protein SAFA surveils viral RNA and facilitates immunity by activating antiviral enhancers and super-enhancers. *Cell Host Microbe* 26: 369-384.e8.
- Elhasnaoui, J., et al. 2020. DSCAM-AS1-driven proliferation of breast cancer cells involves regulation of alternative exon splicing and 3'-end usage. *Cancers* 12: 1453.
- Kerschbamer, E., et al. 2022. CHD8 suppression impacts on histone H3 lysine 36 trimethylation and alters RNA alternative splicing. *Nucleic Acids Res.* 50: 12809-12828.

PROTOCOLS

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



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.