

# hnRNP UL1 (C-4): sc-393434

## 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 UL1 (heterogeneous nuclear ribonucleoprotein U-like 1), also known as E1B-AP5 or HNRPU1, is an 856 amino acid nuclear protein that functions as a transcriptional regulator, playing a role in mRNA processing and transport. Specifically, hnRNP UL1 binds to adenovirus E1B-55kDa oncoprotein and mediates nucleocytoplasmic RNA transport within E1B-55kDa-infected cells. hnRNP UL1 is expressed as five isoforms that are produced due to alternative splicing events.

## REFERENCES

1. Gabler, S., et al. 1998. E1B 55 kilodalton-associated protein: a cellular protein with RNA-binding activity implicated in nucleocytoplasmic transport of adenovirus and cellular mRNAs. *J. Virol.* 72: 7960-7971.
2. Bachi, A., et al. 2000. The C-terminal domain of TAP interacts with the nuclear pore complex and promotes export of specific CTE-bearing RNA substrates. *RNA* 6: 136-158.
3. Kzyshkowska, J., et al. 2001. Heterogeneous nuclear ribonucleoprotein E1B-AP5 is methylated in its Arg-Gly-Gly (RGG) box and interacts with human arginine methyltransferase HRMT1L1. *Biochem. J.* 358: 305-314.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605800. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: HNRNPUL1 (human) mapping to 19q13.2; Hnrnpul1 (mouse) mapping to 7 A3.

## SOURCE

hnRNP UL1 (C-4) is a mouse monoclonal antibody raised against amino acids 565-604 mapping within an internal region of hnRNP UL1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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.

## RESEARCH USE

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

## APPLICATIONS

hnRNP UL1 (C-4) is recommended for detection of hnRNP UL1 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).

Suitable for use as control antibody for hnRNP UL1 siRNA (h): sc-97843, hnRNP UL1 siRNA (m): sc-146064, hnRNP UL1 shRNA Plasmid (h): sc-97843-SH, hnRNP UL1 shRNA Plasmid (m): sc-146064-SH, hnRNP UL1 shRNA (h) Lentiviral Particles: sc-97843-V and hnRNP UL1 shRNA (m) Lentiviral Particles: sc-146064-V.

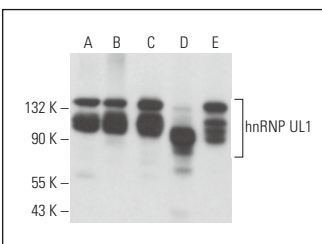
Molecular Weight of hnRNP UL1: 120 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Jurkat nuclear extract: sc-2132 or K-562 nuclear extract: sc-2130.

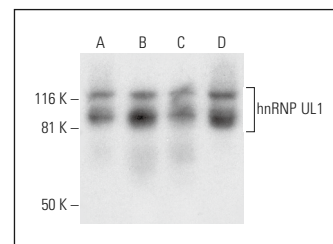
## RECOMMENDED SUPPORT REAGENTS

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 UL1 (C-4): sc-393434. Western blot analysis of hnRNP UL1 expression in K-562 nuclear extract (A) and Raji (B), MCF7 (C), KNRK (D) and Neuro-2A (E) whole cell lysates.



hnRNP UL1 (C-4): sc-393434. Western blot analysis of hnRNP UL1 expression in Ramos (A), K-562 (B), HeLa (C) and Jurkat (D) nuclear extracts.

## SELECT PRODUCT CITATIONS

1. Cichocka, M., et al. 2022. The novel role of hnRNP UL1 in human cell nucleoli. *Int. J. Biol. Sci.* 18: 4809-4823.



See **hnRNP U (3G6): sc-32315** for hnRNP U antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.