SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP UL1 (S-14): sc-161715



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. hnRNPs 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 UL1 (heterogeneous nuclear ribonucleoprotein U-like 1), also known as E1B-AP5 or HNRPUL1, 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

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- 3. Kzhyshkowska, 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/
- 5. Kzhyshkowska, J., et al. 2003. Regulation of transcription by the heterogeneous nuclear ribonucleoprotein E1B-AP5 is mediated by complex formation with the novel bromodomain-containing protein BRD7. Biochem. J. 371: 385-393.
- 6. Barral, P.M., et al. 2005. The interaction of the hnRNP family member E1B-AP5 with p53. FEBS Lett. 579: 2752-2758.
- 7. Shiffman, D., et al. 2006. Gene variants of VAMP8 and HNRPUL1 are associated with early-onset myocardial infarction. Arterioscler. Thromb. Vasc. Biol. 26: 1613-1618.
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CHROMOSOMAL LOCATION

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

SOURCE

hnRNP UL1 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of hnRNP UL1 of human origin.

PRODUCT

Each vial contains 200 µg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161715 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

hnRNP UL1 (S-14) is recommended for detection of hnRNP UL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with hnRNP UL2.

hnRNP UL1 (S-14) is also recommended for detection of hnRNP UL1 in additional species, including equine, canine and porcine.

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 or Jurkat nuclear extract: sc-2132.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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