

HuR (N-16): sc-5483

BACKGROUND

The Elav-like genes encode for a family of RNA-binding proteins. Elav, a *Drosophila* protein and the first described member, is expressed immediately after neuroblastic differentiation into neurons and is necessary for neuronal differentiation and maintenance. Several mammalian Elav-like proteins, designated HuC, HuD and Hel-N1, are also expressed in postmitotic neurons. An additional mammalian homolog, HuR, which is also designated HuA, is ubiquitously expressed and is also overexpressed in a wide variety of tumors. Characteristically, these homologs all contain three RNA recognition motifs (RRM), and they specifically bind to AU-rich elements (ARE) in the 3'-untranslated region of mRNAs transcripts. ARE sites target mRNA for rapid degradation and thereby regulate the expression levels of genes involved in cell growth and differentiation. When Elav-like proteins associate with these ARE sites this degradation is inhibited, leading to an increased stability of the corresponding transcript. Elav proteins function within the nucleus, and they are shuttled between the nucleus and cytoplasm by a nuclear export signal, which is a regulatory feature of the Elav-like proteins as it limits their accessibility to ARE sites.

REFERENCES

1. Chagnovich, D., et al. 1996. Differential activity of Elav-like RNA-binding proteins in human neuroblastoma. *J. Biol. Chem.* 271: 33587-33591.
2. Wakamatsu, Y., et al. 1997. Sequential expression and role of Hu RNA-binding proteins during neurogenesis. *Development* 124: 3449-3460.
3. King, P. 1997. Differential expression of the neuroendocrine genes Hel-N1 and HuD in small-cell lung carcinoma: evidence for downregulation of HuD in the variant phenotype. *Int. J. Cancer* 74: 378-382.
4. Ball, N.S., et al. 1997. Neuron-specific Hel-N1 and HuD as novel molecular markers of neuroblastoma: a correlation of HuD messenger RNA levels with favorable prognostic features. *Clin. Cancer Res.* 3: 1859-1865.
5. Myer, V.E., et al. 1997. Identification of HuR as a protein implicated in AUUUA-mediated mRNA decay. *EMBO J.* 16: 2130-2139.

SOURCE

HuR (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HuR of human origin.

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.

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-5483 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

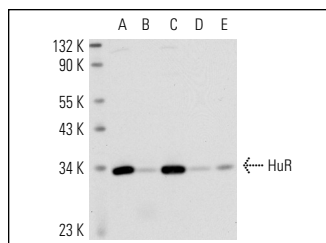
HuR (N-16) is recommended for detection of HuR, HuC and HuD of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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).

HuR (N-16) is also recommended for detection of HuR, HuC and HuD in additional species, including equine, canine, bovine, porcine and avian.

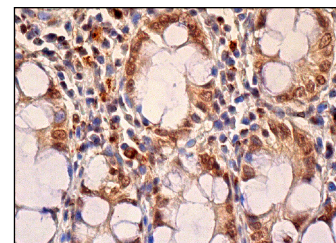
Molecular Weight of HuR: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or NIH/3T3 whole cell lysate: sc-2210.

DATA



HuR (N-16): sc-5483. Western blot analysis of HuR expression in K-562 (A), HeLa (B), Jurkat (C), NIH/3T3 (D) and KNRK (E) whole cell lysates.



HuR (N-16): sc-5483. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Al-Ahmadi, W., et al. 2009. Alternative polyadenylation variants of the RNA binding protein, HuR: abundance, role of AU-rich elements and auto-regulation. *Nucleic Acids Res.* 37: 3612-3624.
2. Soeno, Y., et al. 2010. Identification of novel ribonucleo-protein complexes from the brain-specific snoRNA MBII-52. *RNA* 16: 1293-1300.
3. Pastor, T. and Pagani, F. 2011. Interaction of hnRNP1/A2 and DAZAP1 with an Alu-derived intronic splicing enhancer regulates ATM aberrant splicing. *PLoS ONE* 6: e23349.

PROTOCOLS

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



Try **HuR (3A2): sc-5261** or **HuR (G-5): sc-374285**, our highly recommended monoclonal alternatives to HuR (N-16). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **HuR (3A2): sc-5261**.