

# HuR (h2): 293T Lysate: sc-171115

## 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 mRNA 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 down-regulation 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.
6. Peng, S.S., et al. 1998. RNA stabilization by the AU-rich element binding protein, HuR, an Elav protein. *EMBO J.* 17: 3461-3470.

## CHROMOSOMAL LOCATION

Genetic locus: ELAVL1 (human) mapping to 19p13.2.

## PRODUCT

HuR (h2): 293T Lysate represents a lysate of human HuR transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

HuR (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive HuR antibodies. Recommended use: 10-20 µl per lane.

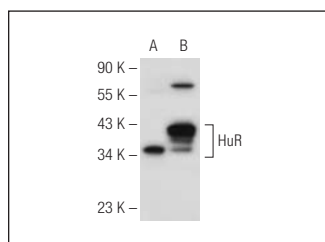
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HuR (H-280): sc-20694 is recommended as a positive control antibody for Western Blot analysis of enhanced human HuR expression in HuR transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

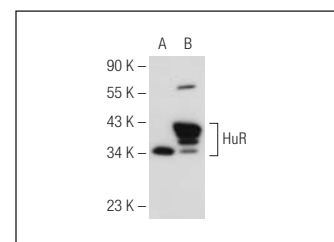
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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.

## DATA



HuR (H-280): sc-20694. Western blot analysis of HuR expression in non-transfected: sc-117752 (A) and human HuR transfected: sc-171115 (B) 293T whole cell lysates.



HuR (19F12): sc-56709. Western blot analysis of HuR expression in non-transfected: sc-117752 (A) and human HuR transfected: sc-171115 (B) 293T whole cell lysates.

## RESEARCH USE

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