

HuR (6A97): sc-71290

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 HuB (also designated Hel-N1 in human, or Mel-N1 in mouse), HuC and HuD 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. 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 (6A97) is a mouse monoclonal antibody raised against full length HuR 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.

APPLICATIONS

HuR (6A97) is recommended for detection of HuR, HuB, HuC and HuD of mouse, rat, human and *Xenopus laevis* 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).

Molecular Weight of HuR: 36 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HEL 92.1.7 cell lysate: sc-2270 or MOLT-4 cell lysate: sc-2233.

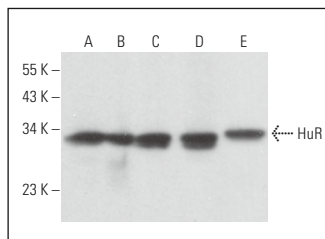
RESEARCH USE

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

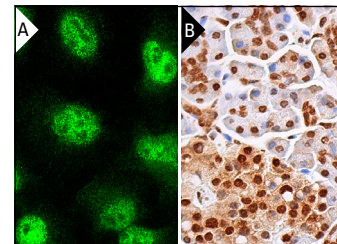
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



HuR (6A97): sc-71290. Western blot analysis of HuR expression in HL-60 (A), HEL 92.1.7 (B), MOLT-4 (C), Ramos (D) and C6 (E) whole cell lysates.



HuR (6A97): sc-71290. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear staining of exocrine glandular cells and nuclear and cytoplasmic staining of islets of Langerhans (B).

SELECT PRODUCT CITATIONS

1. Latorre, E., et al. 2012. Downregulation of HuR as a new mechanism of doxorubicin resistance in breast cancer cells. *Mol. Cancer* 11: 13.
2. Latorre, E., et al. 2016. The ribonucleic complex HuR-MALAT1 represses CD133 expression and suppresses epithelial-mesenchymal transition in breast cancer. *Cancer Res.* 76: 2626-2636.
3. Di Emidio, G., et al. 2017. The natural carotenoid crocetin and the synthetic tellurium compound AS101 protect the ovary against cyclophosphamide by modulating SIRT1 and mitochondrial markers. *Oxid. Med. Cell. Longev.* 2017: 8928604.
4. Wang, M., et al. 2019. Long noncoding RNA LINC00336 inhibits ferroptosis in lung cancer by functioning as a competing endogenous RNA. *Cell Death Differ.* 26: 2329-2343.
5. Liu, S., et al. 2020. Annotation and cluster analysis of long noncoding RNA linked to male sex and estrogen in cancers. *NPJ Precis. Oncol.* 4: 5.
6. Kota, S.K., et al. 2021. Elavl1 impacts osteogenic differentiation and mRNA levels of genes involved in ECM organization. *Front. Cell Dev. Biol.* 9: 606971.
7. Zhong, J., et al. 2022. A novel promoter-associated non-coding small RNA paGLI1 recruits FUS/P65 to transactivate GLI1 gene expression and promotes infiltrating glioma progression. *Cancer Lett.* 530: 68-84.
8. Huang, X.M., et al. 2023. Down-regulation of HuR inhibits pathological angiogenesis in oxygen-induced retinopathy. *Exp. Eye Res.* 227: 109378.



See **HuR (3A2): sc-5261** for HuR antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.