

HuR (G-8): sc-365816

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. 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.

SOURCE

HuR (G-8) is a mouse monoclonal antibody raised against amino acids 1-280 of 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 (G-8) is recommended for detection of HuR, HuB, HuC and HuD 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), 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, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

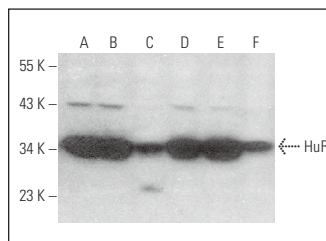
RESEARCH USE

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

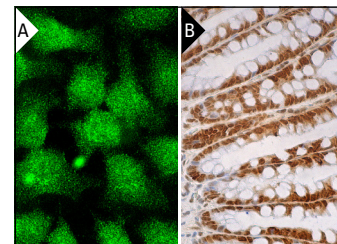
STORAGE

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

DATA



HuR (G-8): sc-365816. Western blot analysis of HuR expression in K-562 (A), Jurkat (B), T98G (C), HL-60 (D), ALL-SIL (E) and NIH/3T3 (F) whole cell lysates.



HuR (G-8): sc-365816. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Ng, C.S., et al. 2013. EMCV disrupts stress granules, the critical platform for triggering antiviral innate immune responses. *J. Virol.* 87: 9511-9522.
2. Cheng, H.S., et al. 2013. MicroRNA-146 represses endothelial activation by inhibiting pro-inflammatory pathways. *EMBO Mol. Med.* 5: 949-966.
3. Elebro, J., et al. 2016. Prognostic effect of hENT1, dCK and HuR expression by morphological type in periampullary adenocarcinoma, including pancreatic cancer. *Acta Oncol.* 55: 286-296.
4. Davidson, B., et al. 2016. HuR mRNA expression in ovarian high-grade serous carcinoma effusions is associated with poor survival. *Hum. Pathol.* 48: 95-101.
5. Balinsky, C.A., et al. 2017. IRVAV (FLJ11286), an interferon stimulated gene with antiviral activity against dengue virus, interacts with MOV10. *J. Virol.* 91: e01606-16.
6. Qian, L., et al. 2018. HuR, TTP, and miR-133b expression in NSCLC and their association with prognosis. *Eur. Rev. Med. Pharmacol. Sci.* 22: 430-442.
7. Mynatt, R.L., et al. 2019. The RNA binding protein HuR influences skeletal muscle metabolic flexibility in rodents and humans. *Metab. Clin. Exp.* 97: 40-49.
8. Woo, H.H., et al. 2021. Regulation of closely juxtaposed proto-oncogene c-Fms and HMGXB3 gene expression by mRNA 3' end polymorphism in breast cancer cells. *RNA* 27: 1068-1081.



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