

# HuD (H-300): sc-25360

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: ELAVL4 (human) mapping to 1p33; Elavl4 (mouse) mapping to 4 C7.

## SOURCE

HuD (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 of HuD of human origin.

## PRODUCT

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

## 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.

## APPLICATIONS

HuD (H-300) is recommended for detection of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

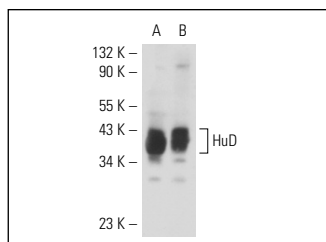
HuD (H-300) is also recommended for detection of HuD in additional species, including equine, canine and bovine.

Suitable for use as control antibody for HuD siRNA (h): sc-37835, HuD siRNA (m): sc-37836, HuD shRNA Plasmid (h): sc-37835-SH, HuD shRNA Plasmid (m): sc-37836-SH, HuD shRNA (h) Lentiviral Particles: sc-37835-V and HuD shRNA (m) Lentiviral Particles: sc-37836-V.

Molecular Weight of HuD: 40 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, rat brain extract: sc-2392 or mouse brain extract: sc-2253.

## DATA



HuD (H-300): sc-25360. Western blot analysis of HuD expression in SK-N-SH whole cell lysate (A) and mouse brain tissue extract (B).

## SELECT PRODUCT CITATIONS

1. Fujiwara, T., et al. 2006. CARM1 regulates proliferation of PC12 cells by methylating HuD. *Mol. Cell. Biol.* 26: 2273-2285.
2. Opazo, A., et al. 2011. Specific and complementary roles for nitric oxide and ATP in the inhibitory motor pathways to rat internal anal sphincter. *Neurogastroenterol. Motil.* 23: e11-e25.
3. Sanna, M.D., et al. 2014. The RNA-binding protein HuD promotes spinal GAP43 overexpression in antiretroviral-induced neuropathy. *Exp. Neurol.* 261: 343-353.
4. Sanna, M.D., et al. 2014. PKC-mediated HuD-GAP43 pathway activation in a mouse model of antiretroviral painful neuropathy. *Pharmacol. Res.* 81: 44-53.



Try **HuD (H-9): sc-48421** or **HuD (E-1): sc-28299**, our highly recommended monoclonal alternatives to HuD (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **HuD (H-9): sc-48421**.