**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.

**CHROMOSOMAL LOCATION**

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

**SOURCE**

HuD (E-1) is a mouse monoclonal antibody raised against amino acids 1-300 of HuD of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

HuD (E-1) is recommended for detection of HuD of mouse, rat and human origin by Western Blotting (starting dilution 1:1,000, dilution range 1:1,000-1:10,000), 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 HuD: 40 kDa.

Positive Controls: EOC 20 whole cell lysate: sc-364187, Neuro-2A whole cell lysate: sc-364185 or SH-SY5Y cell lysate: sc-3812.

**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.

**DATA**

![Western blot analysis of HuD expression in SH-SY5Y (A), Neuro-2A (B), EOC 20 (C), C6 (D) and NRK (E) whole cell lysates.](image1)

![Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing nuclear staining of the granular layer, molecular layer and Purkinje cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program.](image2)

**SELECT PRODUCT CITATIONS**


See HuD (H-9): sc-48421 for HuD antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.