

HuC (D-6): sc-515624



The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: ELAVL3 (human) mapping to 19p13.2; Elavl3 (mouse) mapping to 9 A3.

SOURCE

HuC (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 265-287 within an internal region of HuC 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.

HuC (D-6) is available conjugated to agarose (sc-515624 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515624 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515624 PE), fluorescein (sc-515624 FITC), Alexa Fluor® 488 (sc-515624 AF488), Alexa Fluor® 546 (sc-515624 AF546), Alexa Fluor® 594 (sc-515624 AF594) or Alexa Fluor® 647 (sc-515624 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515624 AF680) or Alexa Fluor® 790 (sc-515624 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515624 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

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

HuC (D-6) is recommended for detection of HuC 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HuC siRNA (h): sc-37833, HuC siRNA (m): sc-37834, HuC shRNA Plasmid (h): sc-37833-SH, HuC shRNA Plasmid (m): sc-37834-SH, HuC shRNA (h) Lentiviral Particles: sc-37833-V and HuC shRNA (m) Lentiviral Particles: sc-37834-V.

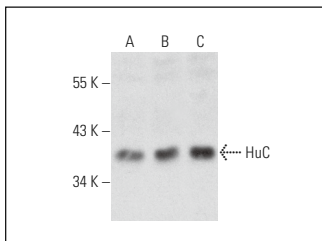
Molecular Weight of HuC: 38 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, IMR-32 cell lysate: sc-2409 or SH-SY5Y cell lysate: sc-3812.

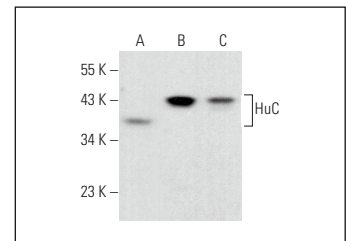
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HuC (D-6): sc-515624. Western blot analysis of HuC expression in SK-N-SH (A), IMR-32 (B) and SH-SY5Y (C) whole cell lysates.



HuC (D-6): sc-515624. Western blot analysis of HuC expression in IMR-32 (A), NTERA-2 cl.D1 (B) and HeLa (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Borgonetti, V. and Galeotti, N. 2021. Intranasal delivery of an antisense oligonucleotide to the RNA-binding protein HuR relieves nerve injury-induced neuropathic pain. Pain 162: 1500-1510.
- Grzejda, D., et al. 2022. The long noncoding RNA mimi scaffolds neuronal granules to maintain nervous system maturity. Sci. Adv. 8: eabo5578.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.