



HuB siRNA (m): sc-149366

BACKGROUND

RNA-binding proteins play important roles in post-transcriptional regulation events during gene expression. Members of the RRM (RNA recognition motif) family are involved in RNA processing events such as polyadenylation and pre-mRNA splicing. As a RRM ELAV family member, HuB (Hu-antigen B) or Mel-N1 (murine embryonic lethal abnormal vision), also designated ELAV-like protein 2, is a 360 amino acid cytoplasmic RNA-binding protein that shares sequence similarity with the mammalian ELAV protein. HuB is the mouse homologue of human Hel-N1 (also designated HuB), an RNA-binding protein specific to the nervous system, and is thought to recognize a GAAA motif within mRNA sequences. Like its human homolog, HuB is a neural-specific protein and also contains three RRM domains. It is suggested that HuB can bind its own 3' untranslated region and therefore is capable of autoregulated post-transcriptional expression.

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 down-regulation 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.
5. Myer, V.E., et al. 1997. Identification of HuR as a protein implicated in AUUUA-mediated mRNA decay. *EMBO J.* 16: 2130-2139.

CHROMOSOMAL LOCATION

Genetic locus: Elavl2 (mouse) mapping to 4 C5.

PRODUCT

HuB siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HuB shRNA Plasmid (m): sc-149366-SH and HuB shRNA (m) Lentiviral Particles: sc-149366-V as alternate gene silencing products.

For independent verification of HuB (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-149366A, sc-149366B and sc-149366C.

RESEARCH USE

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

PROTOCOLS

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

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

HuB siRNA (m) is recommended for the inhibition of HuB expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Mel-N1 gene expression knockdown using RT-PCR Primer: HuB (m)-PR: sc-149366-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.