

hnRNP E3 (I-14): sc-323958

BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription and pre-mRNA processing, as well as mature mRNA transport to the cytoplasm and, ultimately, translation. They also bind heterogeneous nuclear RNA (hnRNA), which are the transcripts produced by RNA polymerase II (Pol II). There are approximately 20 known hnRNP proteins, and their complexes are the major constituents of the spliceosome. The majority of hnRNP protein components are localized to the nucleus, however some shuttle between the nucleus and the cytoplasm. hnRNP E3, also known as PCBP3 (poly(rC)-binding protein 3) or ALPHA-CP3, is a 339 amino acid protein that localizes to the cytoplasm and contains 3 KH domains. Expressed as multiple alternatively spliced isoforms, hnRNP E3 functions as a single-stranded nucleic acid binding protein that binds to oligo dC and plays a role in various post-transcriptional activities.

REFERENCES

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2. Makeyev, A.V. and Liebhaber, S.A. 2000. Identification of two novel mammalian genes establishes a subfamily of KH-domain RNA-binding proteins. *Genomics* 67: 301-316.
3. Makeyev, A.V. and Liebhaber, S.A. 2002. The poly(C)-binding proteins: a multiplicity of functions and a search for mechanisms. *RNA* 8: 265-278.
4. Makeyev, A.V., Eastmond, D.L. and Liebhaber, S.A. 2002. Targeting a KH-domain protein with RNA decoys. *RNA* 8: 1160-1173.
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6. Hirano, M. and Noda, T. 2004. Genomic organization of the mouse Msh4 gene producing bicistronic, chimeric and antisense mRNA. *Gene* 342: 165-177.
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CHROMOSOMAL LOCATION

Genetic locus: PCBP3 (human) mapping to 21q22.3; Pcbp3 (mouse) mapping to 10 C1.

SOURCE

hnRNP E3 (I-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of hnRNP E3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-323958 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

hnRNP E3 (I-14) is recommended for detection of hnRNP E3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with hnRNP E1 or hnRNP E2.

hnRNP E3 (I-14) is also recommended for detection of hnRNP E3 in additional species, including equine.

Suitable for use as control antibody for hnRNP E3 siRNA (h): sc-105534, hnRNP E3 siRNA (m): sc-146061, hnRNP E3 shRNA Plasmid (h): sc-105534-SH, hnRNP E3 shRNA Plasmid (m): sc-146061-SH, hnRNP E3 shRNA (h) Lentiviral Particles: sc-105534-V and hnRNP E3 shRNA (m) Lentiviral Particles: sc-146061-V.

Molecular Weight of hnRNP E3: 36 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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.

PROTOCOLS

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