

CPEB2 (H-40): sc-134918

BACKGROUND

The regulated translation of messenger RNA is essential for cell-cycle progression, establishment of the body plan during early development and modulation of key activities in the central nervous system. Cytoplasmic polyadenylation, one mechanism of controlling translation, is driven by cytoplasmic polyadenylation element binding proteins, called CPEBs. CPEB2 is highly similar to CPEB, a conserved, sequence-specific RNA-binding protein that binds to the cytoplasmic polyadenylation element, thereby modulating translational repression and mRNA localization. Expressed in a variety of tissues with abundant expression observed in the testis, CPEB2 is thought to regulate mRNA expression of previously inactive spermatids during spermiogenesis. CPEB2 binds to poly (U) mRNA oligomers and contains two RNA recognition motif domains.

REFERENCES

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3. Mendez, R., et al. 2001. Translational control by CPEB: a means to the end. *Nat. Rev. Mol. Cell Biol.* 2: 521-529.
4. Gebauer, F., et al. 2001. Fertility facts: male and female germ cell development requires translational control by CPEB. *Mol. Cell* 8: 247-249.
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7. Cao, Q., et al. 2005. Amyloid precursor proteins anchor CPEB to membranes and promote polyadenylation-induced translation. *Mol. Cell. Biol.* 25: 10930-10939.
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CHROMOSOMAL LOCATION

Genetic locus: CPEB2 (human) mapping to 4p15.33; Cpeb2 (mouse) mapping to 5 B3.

SOURCE

CPEB2 (H-40) is a rabbit polyclonal antibody raised against amino acids 106-145 mapping within an internal region of CPEB2 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.

RESEARCH USE

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

APPLICATIONS

CPEB2 (H-40) is recommended for detection of CPEB2 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).

Suitable for use as control antibody for CPEB2 siRNA (h): sc-62154, CPEB2 siRNA (m): sc-62155, CPEB2 shRNA Plasmid (h): sc-62154-SH, CPEB2 shRNA Plasmid (m): sc-62155-SH, CPEB2 shRNA (h) Lentiviral Particles: sc-62154-V and CPEB2 shRNA (m) Lentiviral Particles: sc-62155-V.

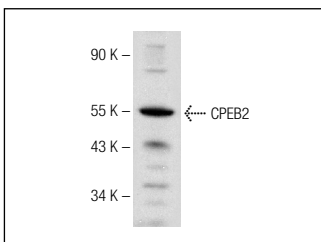
Molecular Weight of CPEB2: 62 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or WI 38 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CPEB2 (H-40): sc-134918. Western blot analysis of CPEB2 expression in WI 38 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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