

CREST (H-127): sc-99072

BACKGROUND

The calcium-responsive transactivator (CREST, SS18L1) protein localizes to nuclear bodies and is required for the normal development of neuronal dendritic trees. CREST contains a multifunctional domain (MFD), which mediates transcription transactivation, nuclear body targeting and dimerization. CREST interacts with adenosine 3',5'-monophosphate (cAMP) response element-binding protein (CREB)-binding protein (CBP) to regulate neuronal morphogenesis. CREST exhibits ubiquitous expression, with lowest levels observed in the spleen. Mice with a targeted disruption of the Ss18l1 gene (CREST gene) are viable despite defects in cortical and hippocampal dendrite development. Cortical neurons from CREST-mutant mice are compromised in calcium-dependent dendritic growth, which leads to the conclusion that calcium activation of CREST-mediated transcription helps regulate neuronal morphogenesis.

REFERENCES

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2. de Bruijn, D.R., et al. 2001. Mapping and characterization of the mouse and human SS18 genes, two human SS18-like genes and a mouse Ss18 pseudogene. Cytogenet. Cell Genet. 92: 310-319.
3. Storlazzi, C.T., et al. 2003. A novel fusion gene, SS18L1/SSX1, in synovial sarcoma. Genes Chromosomes Cancer 37: 195-200.
4. Aizawa, H., et al. 2004. Dendrite development regulated by CREST, a calcium-regulated transcriptional activator. Science 303: 197-202.
5. Pradhan, A. and Liu, Y. 2004. The calcium-responsive transactivator recruits CREB binding protein to nuclear bodies. Neurosci. Lett. 370: 191-195.
6. Pradhan, A. and Liu, Y. 2005. A multifunctional domain of the calcium-responsive transactivator (CREST) that inhibits dendritic growth in cultured neurons. J. Biol. Chem. 280: 24738-24743.
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CHROMOSOMAL LOCATION

Genetic locus: SS18L1 (human) mapping to 20q13.33; Ss18l1 (mouse) mapping to 2 H4.

SOURCE

CREST (H-127) is a rabbit polyclonal antibody raised against amino acids 82-208 mapping within an internal region of CREST 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.

STORAGE

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

APPLICATIONS

CREST (H-127) is recommended for detection of CREST 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 CREST siRNA (h): sc-60441, CREST siRNA (m): sc-60442, CREST shRNA Plasmid (h): sc-60441-SH, CREST shRNA Plasmid (m): sc-60442-SH, CREST shRNA (h) Lentiviral Particles: sc-60441-V and CREST shRNA (m) Lentiviral Particles: sc-60442-V.

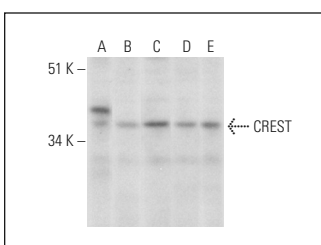
Molecular Weight of CREST: 55 kDa.

Positive Controls: SK-N-MC nuclear extract: sc-2154, K-562 nuclear extract: sc-2130 or Jurkat nuclear extract: sc-2132.

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



CREST (H-127): 99072. Western blot analysis of CREST expression in SK-N-MC (A), K-562 (B), Jurkat (C), HeLa (D) and MCF7 (E) nuclear extracts.

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.