

CREST (Q-15): sc-50913

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 (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

1. Ishikawa, K., et al. 1998. Prediction of the coding sequences of unidentified human genes. X. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 169-176.
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.

CHROMOSOMAL LOCATION

Genetic locus: SS18L1 (human) mapping to 20q13.33.

SOURCE

CREST (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-50913 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

CREST (Q-15) is recommended for detection of CREST of 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 shRNA Plasmid (h): sc-60441-SH and CREST shRNA (h) Lentiviral Particles: sc-60441-V.

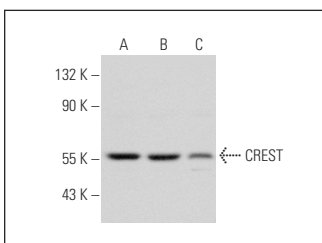
Molecular Weight of CREST: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or IMR-32 cell lysate: sc-2409.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CREST (Q-15): sc-50913. Western blot analysis of CREST expression in HeLa (A), MCF7 (B) and IMR-32 (C) whole cell lysates.

RESEARCH USE

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