SANTA CRUZ BIOTECHNOLOGY, INC.

CREST (D-7): sc-515827

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

CREST (D-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 287-312 within an internal region of CREST of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CREST (D-7) is available conjugated to agarose (sc-515827 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515827 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515827 PE), fluorescein (sc-515827 FITC), Alexa Fluor® 488 (sc-515827 AF488), Alexa Fluor® 546 (sc-515827 AF546), Alexa Fluor® 594 (sc-515827 AF594) or Alexa Fluor® 647 (sc-515827 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515827 AF680) or Alexa Fluor® 790 (sc-515827 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

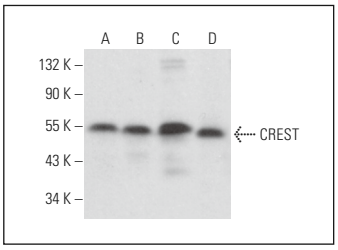
CREST (D-7) is recommended for detection of CREST of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

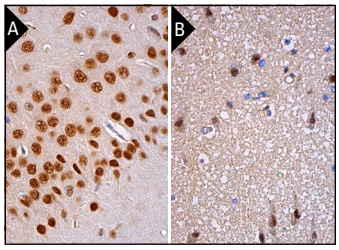
Molecular Weight of CREST: 55 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, C6 whole cell lysate: sc-364373 or Neuro-2A whole cell lysate: sc-364185.

DATA



CREST (D-7): sc-515827. Western blot analysis of CREST expression in SK-N-SH (**A**), Neuro-2A (**B**) and C6 (**C**) whole cell lysates and K-562 nuclear extract (**D**).



CREST (D-7): sc-515827. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse brain tissue showing nuclear staining of neuronal cells and glial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing nuclear staining of subset of neuronal cells (**B**).

SELECT PRODUCT CITATIONS

1. Fulton, S.L., et al. 2022. Rescue of deficits by Brwd1 copy number restoration in the Ts65Dn mouse model of Down syndrome. Nat. Commun. 13: 6384.

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.