SANTA CRUZ BIOTECHNOLOGY, INC.

CRELD2 (D-5): sc-376599

BACKGROUND

The epidermal growth factor (EGF) repeat-containing proteins constitute an expanding family of proteins that are involved in several cellular activities, such as blood coagulation, fibrinolysis, cell adhesion and neural and vertebrate development. CRELD2 (cysteine-rich with EGF-like domains 2) is a 353 amino acid protein that is ubiquitously expressed and contains two FU domains and two EGF-like domains. Localized to the endoplasmic reticulum and secreted into the cell, CRELD2 interacts with AChRα4, possibly regulating its transport. Human CRELD2 shares 69% amino acid identity with its mouse counterpart, suggesting a conserved role between species. Multiple isoforms of CRELD2 exist due to alternative splicing events. The gene encoding CRELD2 maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, neurofibromatosis type 2, autism and schizophrenia.

REFERENCES

1. Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. Chromosome 22. Genet. Test. 2: 89-97.
2. Rupp, P.A., et al. 2002. Identification, genomic organization and mRNA expression of CRELD1, the founding member of a unique family of matricellular proteins. Gene 293: 47-57.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607171. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Ortiz, J.A., et al. 2005. The cysteine-rich with EGF-like domains 2 (CRELD2) protein interacts with the large cytoplasmic domain of human neuronal nicotinic acetylcholine receptor α4 and β2 subunits. J. Neurochem. 95: 1585-1596.
5. Maslen, C.L., et al. 2006. CRELD2: gene mapping, alternate splicing, and comparative genomic identification of the promoter region. Gene 382: 111-120.
6. Jariwala, U., et al. 2007. Identification of novel androgen receptor target genes in prostate cancer. Mol. Cancer 6: 39.

CHROMOSOMAL LOCATION

Genetic locus: CRELD2 (human) mapping to 22q13.33.

SOURCE

CRELD2 (D-5) is a mouse monoclonal antibody raised against a peptide mapping within an internal region of CRELD2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain 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

CRELD2 (D-5) is recommended for detection of CRELD2 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CRELD2 siRNA (h): sc-77023, CRELD2 shRNA Plasmid (h): sc-77023-SH and CRELD2 shRNA (h) Lentiviral Particles: sc-77023-V.

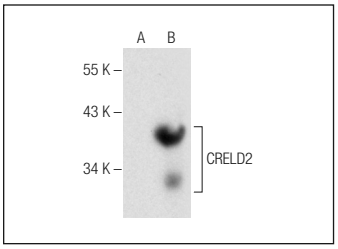
Molecular Weight of CRELD2: 38 kDa.

Positive Controls: CRELD2 (h): 293T Lysate: sc-116270.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CRELD2 (D-5): sc-376599. Western blot analysis of CRELD2 expression in non-transfected: sc-117752 (**A**) and human CRELD2 transfected: sc-116270 (**B**) 293T whole cell lysates.

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.