

CRELD2 (C-7): sc-271858

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 AChR α 4, 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

- Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 22. Genet. Test.* 2: 89-97.
- Rupp, P.A., et al. 2002. Identification, genomic organization and mRNA expression of CRELD1, the founding member of a unique family of matrix-cellular proteins. *Gene* 293: 47-57.
- 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/>
- 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 α 4 and β 2 subunits. *J. Neurochem.* 95: 1585-1596.
- Maslen, C.L., et al. 2006. CRELD2: gene mapping, alternate splicing, and comparative genomic identification of the promoter region. *Gene* 382: 111-120.

CHROMOSOMAL LOCATION

Genetic locus: CRELD2 (human) mapping to 22q13.33; Creld2 (mouse) mapping to 15 E3.

SOURCE

CRELD2 (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 141-173 within an internal region of CRELD2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271858 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CRELD2 (C-7) is recommended for detection of CRELD2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

CRELD2 (C-7) is also recommended for detection of CRELD2 in additional species, including porcine.

Suitable for use as control antibody for CRELD2 siRNA (h): sc-77023, CRELD2 siRNA (m): sc-142568, CRELD2 shRNA Plasmid (h): sc-77023-SH, CRELD2 shRNA Plasmid (m): sc-142568-SH, CRELD2 shRNA (h) Lentiviral Particles: sc-77023-V and CRELD2 shRNA (m) Lentiviral Particles: sc-142568-V.

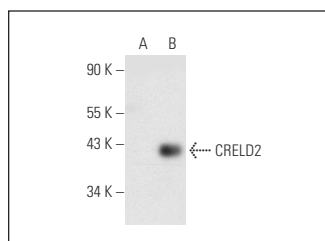
Molecular Weight of CRELD2: 38 kDa.

Positive Controls: CRELD2 (h): 293T Lysate: sc-116270 or mouse prostate extract: sc-364249.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 (C-7): sc-271858. Western blot analysis of CRELD2 expression in non-transfected: sc-117752 (A) and human CRELD2 transfected: sc-116270 (B) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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