

# CRELD2 (Y-12): sc-86112

## 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 2 FU domains and two EGF-like domains. Localized to the endoplasmic reticulum and secreted into the cell, CRELD2 interacts with AChR $\alpha$ 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

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 matrix-cellular proteins. *Gene* 293: 47-57.
3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 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  $\alpha$ 4 and  $\beta$ 2 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 (Y-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CRELD2 of human origin.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86112 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CRELD2 (Y-12) is recommended for detection of CRELD2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (Y-12) is also recommended for detection of CRELD2 in additional species, including equine, canine, porcine and avian.

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.

## 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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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<sup>™</sup> Mounting Medium: sc-24941.

## RESEARCH USE

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