

## C2CD3 (E-16): sc-139130

### BACKGROUND

C2CD3 (C2 domain-containing protein 3), also known as FLJ34770, is a 2,353 amino acid protein that contains 2 C2 domains. C2 domains are regions of about 130 amino acid residues that are found in proteins that bind phospholipids. It is thought that calcium binding to the C2 domain induces an electrostatic potential change that enhances phospholipid binding, which suggests a role for the domain as an electrostatic switch. C2CD3 is expressed as five isoforms produced by alternative splicing events. The gene that encodes C2CD3 maps to human chromosome 11, which makes up around 4% of human genomic DNA. The chromosome 11 encoded *Atm* gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. *Atm* mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and  $\beta$  thalassemia are caused by HBB gene mutations. Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary an-gioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: C2CD3 (human) mapping to 11q13.4; C2cd3 (mouse) mapping to 7 E3.

### SOURCE

C2CD3 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of C2CD3 of human origin.

### RESEARCH USE

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

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-139130 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

C2CD3 (E-16) is recommended for detection of C2CD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

C2CD3 (E-16) is also recommended for detection of C2CD3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for C2CD3 siRNA (h): sc-96494, C2CD3 siRNA (m): sc-141892, C2CD3 shRNA Plasmid (h): sc-96494-SH, C2CD3 shRNA Plasmid (m): sc-141892-SH, C2CD3 shRNA (h) Lentiviral Particles: sc-96494-V and C2CD3 shRNA (m) Lentiviral Particles: sc-141892-V.

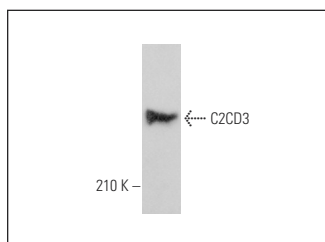
Molecular Weight of C2CD3: 260 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

### 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



C2CD3 (E-16): sc-139130. Western blot analysis of C2CD3 expression in HeLa whole cell lysate.

### STORAGE

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