

# C4orf33 (T-13): sc-138169

## BACKGROUND

C4orf33 (chromosome 4 open reading frame 33) is a 199 amino acid protein that is encoded by a gene that maps to human chromosome 4. Human chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is located on chromosome 4. FGFR-3 is also encoded by a gene that maps to human chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

## REFERENCES

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- Chandler, R.J., et al. 2007. Metabolic phenotype of methylmalonic acidemia in mice and humans: the role of skeletal muscle. *BMC Med. Genet.* 8: 64.
- Cunningham, M.L., et al. 2007. Syndromic craniosynostosis: from history to hydrogen bonds. *Orthod. Craniofac. Res.* 10: 67-81.
- de Frutos, C.A., et al. 2007. Snail1 is a transcriptional effector of FGFR-3 signaling during chondrogenesis and achondroplasias. *Dev. Cell* 13: 872-883.
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- Stack, E.C., et al. 2007. Neuroprotective effects of synaptic modulation in Huntington's disease R6/2 mice. *J. Neurosci.* 27: 12908-12915.

## CHROMOSOMAL LOCATION

Genetic locus: C4orf33 (human) mapping to 4q28.2; D3Erd751e (mouse) mapping to 3 B.

## SOURCE

C4orf33 (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of C4orf33 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138169 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

C4orf33 (T-13) is recommended for detection of C4orf33 of human origin, D3Erd751e of mouse origin and the corresponding rat homolog by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other C4orf family members.

C4orf33 (T-13) is also recommended for detection of C4orf33 in additional species, including equine and porcine.

Suitable for use as control antibody for C4orf33 siRNA (h): sc-88969, D3Erd751e siRNA (m): sc-142819, C4orf33 shRNA Plasmid (h): sc-88969-SH, D3Erd751e shRNA Plasmid (m): sc-142819-SH, C4orf33 shRNA (h) Lentiviral Particles: sc-88969-V and D3Erd751e shRNA (m) Lentiviral Particles: sc-142819-V.

Molecular Weight (predicted) of C4orf33: 23 kDa.

Molecular Weight (observed) of C4orf33: 27 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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) 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™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.