

# C5orf34 (E-19): sc-242205

## BACKGROUND

With 181 million base pairs encoding around 1,000 genes, chromosome 5 is about 6% of human genomic DNA. It is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome. The C5orf34 gene product has been provisionally designated C5orf34 pending further characterization.

## REFERENCES

- Dixon, M.J., Read, A.P., Donnai, D., Colley, A., Dixon, J. and Williamson, R. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. *Am. J. Hum. Genet.* 49: 17-22.
- Saltman, D.L., Dolganov, G.M., Warrington, J.A., Wasmuth, J.J. and Lovett, M. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. *Genomics* 16: 726-732.
- Kadmon, M., Tandara, A. and Herfarth, C. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the Heidelberg Polyposis Register. *Int. J. Colorectal Dis.* 16: 63-75.
- South, S.T., Swensen, J.J., Maxwell, T., Rope, A., Brothman, A.R. and Chen, Z. 2006. A new genomic mechanism leading to Cri du chat syndrome. *Am. J. Med. Genet. A* 140: 2714-2720.
- Aretz, S., Stienen, D., Friedrichs, N., Stemmler, S., Uhlhaas, S., Rahner, N., Propping, P. and Friedl, W. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). *Hum. Mutat.* 28: 985-992.
- Cleaver, J.E., Hefner, E., Laposa, R.R., Karentz, D. and Marti, T. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. *Neuroscience* 145: 1300-1308.
- Du, H.Y., Idol, R., Robledo, S., Ivanovich, J., An, P., Londono-Vallejo, A., Wilson, D.B., Mason, P.J. and Bessler, M. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p- syndrome. *Aging Cell* 6: 689-697.
- Herry, A., Douet-Guilbert, N., Morel, F., Le Bris, M.J. and De Braekeleer, M. 2007. Redefining monosomy 5 by molecular cytogenetics in 23 patients with MDS/AML. *Eur. J. Haematol.* 78: 457-467.
- Makrantonaki, E. and Zouboulis, C.C. 2007. Molecular mechanisms of skin aging: state of the art. *Ann. N.Y. Acad. Sci.* 1119: 40-50.

## CHROMOSOMAL LOCATION

Genetic locus: C5orf34 (human) mapping to 5p12; 4833420G17Rik (mouse) mapping to 13 D2.3.

## SOURCE

C5orf34 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C5orf34 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-242205 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

C5orf34 (E-19) is recommended for detection of C5orf34 of human origin, 4833420G17Rik of mouse origin and the corresponding rat homolog 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).

C5orf34 (E-19) is also recommended for detection of C5orf34 in additional species, including equine and canine.

Suitable for use as control antibody for C5orf34 siRNA (h): sc-91655, 4833420G17Rik siRNA (m): sc-108974, C5orf34 shRNA Plasmid (h): sc-91655-SH, 4833420G17Rik shRNA Plasmid (m): sc-108974-SH, C5orf34 shRNA (h) Lentiviral Particles: sc-91655-V and 4833420G17Rik shRNA (m) Lentiviral Particles: sc-108974-V.

Molecular Weight of C5orf34: 73 kDa.

## 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) 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.

## 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.

## PROTOCOLS

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