SANTA CRUZ BIOTECHNOLOGY, INC.

C5orf24 (P-12): sc-138868

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The Power to Question

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 C5orf24 gene product has been provisionally designated C5orf24 pending further characterization.

REFERENCES

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2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. Genomics 16: 726-732.
3. Kadmon, M., et al. 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.
4. South, S.T., et al. 2006. A new genomic mechanism leading to cri-du-chat syndrome. Am. J. Med. Genet. A 140: 2714-2720.
5. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). Hum. Mutat. 28: 985-992.
6. Cleaver, J.E., et al. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. Neuroscience 145: 1300-1308.
7. Du, H.Y., et al. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p- syndrome. Aging Cell 6: 689-697.
8. Herry, A., et al. 2007. Redefining monosomy 5 by molecular cytogenetics in 23 patients with MDS/AML. Eur. J. Haematol. 78: 457-467.

CHROMOSOMAL LOCATION

Genetic locus: C5orf24 (human) mapping to 5q31.1; B230219D22Rik (mouse) mapping to 13 B1.

SOURCE

C5orf24 (P-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of C5orf24 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-138868 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C5orf24 (P-12) is recommended for detection of C5orf24 isoforms 1 and 2 of human origin, B230219D22Rik of mouse origin and the corresponding rat homolog by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 C5orf family members.

C5orf24 (P-12) is also recommended for detection of C5orf24 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for C5orf24 siRNA (h): sc-91880, B230219D22Rik siRNA (m): sc-141437, C5orf24 shRNA Plasmid (h): sc-91880-SH, B230219D22Rik shRNA Plasmid (m): sc-141437-SH, C5orf24 shRNA (h) Lentiviral Particles: sc-91880-V and B230219D22Rik shRNA (m) Lentiviral Particles: sc-141437-V.

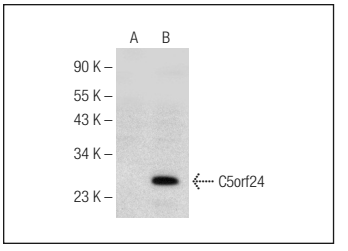
Molecular Weight of C5orf24 isoforms: 20/17 kDa.

Positive Controls: C5orf24 (h): 293T Lysate: sc-116542 or c4 whole cell lysate.

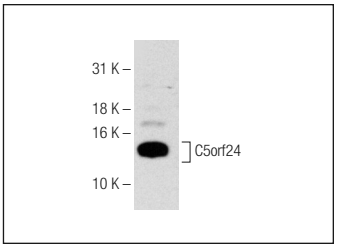
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



C5orf24 (P-12): sc-138868. Western blot analysis of C5orf24 expression in non-transfected: sc-117752 (**A**) and human C5orf24 transfected: sc-116542 (**B**) 293T whole cell lysates.



C5orf24 (P-12): sc-138868. Western blot analysis of C5orf24 expression in c4 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.

RESEARCH USE

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