SANTA CRUZ BIOTECHNOLOGY, INC.

C1orf168 (N-14): sc-240089

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma. The C1orf168 gene product has been provisionally designated C1orf168 pending further characterization. There are two isoforms of C1orf168 that are produced as a result of alternative splicing events.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. J. Exp. Med. 172: 263-272.
2. Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. Am. J. Hum. Genet. 69: 428-433
3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
4. Lans, H. and Hoeijmakers, J.H. 2006. Cell biology: aging nucleus gets out of shape. Nature 440: 32-34.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
6. Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC1 in major mental illness. Schizophr. Bull. 32: 409-416.
7. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.

CHROMOSOMAL LOCATION

Genetic locus: C1orf168 (human) mapping to 1p32.2; 1700024P16Rik (mouse) mapping to 4 C6.

SOURCE

C1orf168 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of C1orf168 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.

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-240089 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C1orf168 (N-14) is recommended for detection of 1700024P16Rik of mouse origin and C1orf168 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for C1orf168 siRNA (h): sc-88643, 1700024P16Rik siRNA (m): sc-108387, C1orf168 shRNA Plasmid (h): sc-88643-SH, 1700024P16Rik shRNA Plasmid (m): sc-108387-SH, C1orf168 shRNA (h) Lentiviral Particles: sc-88643-V and 1700024P16Rik shRNA (m) Lentiviral Particles: sc-108387-V.

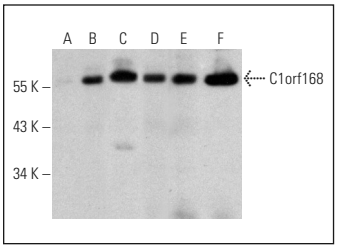
Molecular Weight of C1orf168: 82/39 kDa.

Positive Controls: C1orf168 (h): 293T Lysate: sc-176973, Hep G2 cell lysate: sc-2227 or mouse colon extract: sc-364238.

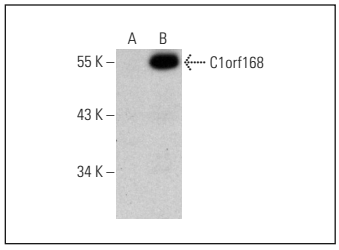
RECOMMENDED SECONDARY REAGENTS

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



C1orf168 (N-14): sc-240089. Western blot analysis of C1orf168 expression in non-transfected 293T: sc-117752 (**A**), human C1orf168 transfected 293T: sc-176973 (**B**) and Hep G2 (**C**) whole cell lysates and human stomach (**D**), mouse colon (**E**) and mouse brain (**F**) tissue extracts.



C1orf168 (N-14): sc-240089. Western blot analysis of C1orf168 expression in non-transfected CHO (**A**) and human C1orf168 transfected CHO (**B**) whole cell lysates.

RESEARCH USE

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