

C8orf45 (C-16): sc-87601

BACKGROUND

Made up of nearly 146 million bases, chromosome 8 encodes about 800 genes. Translocation of portions of chromosome 8 with amplifications of the c-Myc gene are found in some leukemias and lymphomas, and are typically associated with a poor prognosis. Portions of chromosome 8 have been linked to schizophrenia and bipolar disorder. Trisomy 8, also known as Warkany syndrome 2, most often results in early miscarriage but is occasionally seen in a mosaic form in surviving patients who suffer to a varying degree from a number of symptoms, including retarded mental and motor development, and certain facial and developmental defects. WRN is a DNA helicase encoded by chromosome 8 and shown defective in those with the early aging disorder Werner syndrome. Chromosome 8 is also associated with Pfeiffer syndrome, congenital hypothyroidism and Waardenburg syndrome. The C8orf45 gene product has been provisionally designated C8orf45 pending further characterization.

REFERENCES

1. Robin, N.H., et al. 1994. Linkage of Pfeiffer syndrome to chromosome 8 centromere and evidence for genetic heterogeneity. *Hum. Mol. Genet.* 3: 2153-2158.
2. Zollino, M., et al. 1995. Constitutional trisomy 8 and myelodysplasia: report of a case and review of the literature. *Leuk. Res.* 19: 733-736.
3. Kashino, G., et al. 2001. Preferential expression of an intact WRN gene in Werner syndrome cell lines in which a normal chromosome 8 has been introduced. *Biochem. Biophys. Res. Commun.* 289: 111-115.
4. Selicorni, A., et al. 2002. Cytogenetic mapping of a novel locus for type II Waardenburg syndrome. *Hum. Genet.* 110: 64-67.
5. McQueen, et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
6. Mossafa, H., et al. 2006. Non-Hodgkin's lymphomas with Burkitt-like cells are associated with c-Myc amplification and poor prognosis. *Leuk. Lymphoma* 47: 1885-1893.
7. Nusbaum, C., et al. 2006. DNA sequence and analysis of human chromosome 8. *Nature* 439: 331-335.
8. Agrelo, R., et al. 2006. Epigenetic inactivation of the premature aging Werner syndrome gene in human cancer. *Proc. Natl. Acad. Sci. USA* 103: 8822-8827.

CHROMOSOMAL LOCATION

Genetic locus: C8orf45 (human) mapping to 8q13.1; 6030422M02Rik (mouse) mapping to 1 A2.

SOURCE

C8orf45 (C-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of C8orf45 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 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-87601 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C8orf45 (C-16) is recommended for detection of C8orf45 of human origin, 6030422M02Rik 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).

C8orf45 (C-16) is also recommended for detection of C8orf45 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for C8orf45 siRNA (h): sc-77671, 6030422M02Rik siRNA (m): sc-140419, C8orf45 shRNA Plasmid (h): sc-77671-SH, 6030422M02Rik shRNA Plasmid (m): sc-140419-SH, C8orf45 shRNA (h) Lentiviral Particles: sc-77671-V and 6030422M02Rik shRNA (m) Lentiviral Particles: sc-140419-V.

Molecular Weight of C8orf45: 76 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 or our catalog for detailed protocols and support products.