SANTA CRUZ BIOTECHNOLOGY, INC.

CWH43 (K-16): sc-242529

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CWH43 (cell wall biogenesis protein 43 C-terminal homolog), also known as PGAP2IP (PGAP2-interacting protein), is a 699 amino acid multi-pass membrane protein that belongs to the PGAP2IP family. During GPI-anchor maturation, CWH43 is involved in lipid remodeling and is known to interact with FRAG1 (PGAP2). CWH43 is N-glycosylated and is encoded by a gene that maps to human chromosome 4. 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 on chromosome 4. FGFR-3 is also encoded on 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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2. Bonaventure, J., et al. 1996. Common mutations in the fibroblast growth factor receptor 3 (FGFR 3) gene account for achondroplasia, hypochondroplasia, and thanatophoric dwarfism. Am. J. Med. Genet. 63: 148-154.
3. Kalchman, M.A., et al. 1996. Huntingtin is ubiquitinated and interacts with a specific ubiquitin-conjugating enzyme. J. Biol. Chem. 271: 19385-19394.
4. Howard, T.D., et al. 1997. Autosomal dominant postaxial polydactyly, nail dystrophy, and dental abnormalities map to chromosome 4p16, in the region containing the Ellis-van Creveld syndrome locus. Am. J. Hum. Genet. 61: 1405-1412.
5. Singhrao, S.K., et al. 1998. Huntingtin protein colocalizes with lesions of neurodegenerative diseases: An investigation in Huntington's, Alzheimer's, and Pick's diseases. Exp. Neurol. 150: 213-222.
6. Krakow, D., et al. 2000. Exclusion of the Ellis-van Creveld region on chromosome 4p16 in some families with asphyxiating thoracic dystrophy and short-rib polydactyly syndromes. Eur. J. Hum. Genet. 8: 645-648.
7. Dobson, C.M., et al. 2002. Identification of the gene responsible for the cblA complementation group of vitamin B12-responsive methylmalonic acidemia based on analysis of prokaryotic gene arrangements. Proc. Natl. Acad. Sci. USA 99: 15554-15559.

CHROMOSOMAL LOCATION

Genetic locus: CWH43 (human) mapping to 4p11; Cwh43 (mouse) mapping to 5 C3.2.

SOURCE

CWH43 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CWH43 of human origin.

RESEARCH USE

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

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-242529 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CWH43 (K-16) is recommended for detection of CWH43 of mouse, rat and 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).

CWH43 (K-16) is also recommended for detection of CWH43 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CWH43 siRNA (h): sc-88948, CWH43 siRNA (m): sc-141831, CWH43 shRNA Plasmid (h): sc-88948-SH, CWH43 shRNA Plasmid (m): sc-141831-SH, CWH43 shRNA (h) Lentiviral Particles: sc-88948-V and CWH43 shRNA (m) Lentiviral Particles: sc-141831-V.

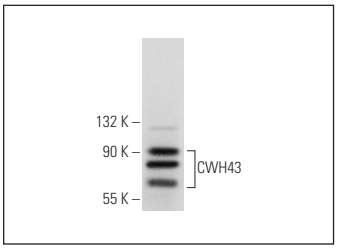
Molecular Weight of CWH43: 79 kDa.

Positive Controls: MES-SA/Dx5 cell lysate: sc-2284.

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



CWH43 (K-16): sc-242529. Western blot analysis of CWH43 expression in MES-SA/Dx5 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.