

WDTC1 (D-15): sc-160916

BACKGROUND

WDTC1 (WD and tetratricopeptide repeats 1), also known as ADP or DCAF9, is a 677 amino acid protein that contains seven WD repeats, two TPR repeats and exists as six alternatively spliced isoforms. WDTC1 is the human ortholog of *Drosophila adp* (adipose), an obesity gene involved in fat storage. WDTC1 is encoded by a gene located on human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Eudy, J.D., et al. 1998. Isolation of a gene encoding a novel member of the nuclear receptor superfamily from the critical region of Usher syndrome type IIa at 1q41. *Genomics* 50: 382-384.
2. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. *Mol. Genet. Metab.* 73: 313-321.
3. Häder, T., et al. 2003. Control of triglyceride storage by a WD40/TPR-domain protein. *EMBO Rep.* 4: 511-516.
4. Angers, S., et al. 2006. Molecular architecture and assembly of the DDB1-CUL4A ubiquitin ligase machinery. *Nature* 443: 590-593.
5. Lee, J., Zhou, P. 2007. DCAFs, the missing link of the CUL4-DDB1 ubiquitin ligase. *Mol. Cell* 26: 775-780.
6. Balcárcová, J., et al. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. *Cancer Genet. Cytogenet.* 192: 68-72.
7. Lai, C.Q., et al. 2009. WDTC1, the ortholog of *Drosophila adipose* gene, associates with human obesity, modulated by MUFA intake. *Obesity* 17: 593-600.

CHROMOSOMAL LOCATION

Genetic locus: WDTC1 (human) mapping to 1p36.11; *Wdtd1* (mouse) mapping to 4 D2.3.

SOURCE

WDTC1 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WDTC1 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-160916 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

WDTC1 (D-15) is recommended for detection of WDTC1 of mouse, rat and human origin 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).

WDTC1 (D-15) is also recommended for detection of WDTC1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for WDTC1 siRNA (h): sc-88033, WDTC1 siRNA (m): sc-155332, WDTC1 shRNA Plasmid (h): sc-88033-SH, WDTC1 shRNA Plasmid (m): sc-155332-SH, WDTC1 shRNA (h) Lentiviral Particles: sc-88033-V and WDTC1 shRNA (m) Lentiviral Particles: sc-155332-V.

Molecular Weight of WDTC1: 76 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.