SANTA CRUZ BIOTECHNOLOGY, INC.

WDR40A (D-12): sc-137918



The Power to Question

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. WDR40A (WD-repeat-containing protein 40A), also known as DDB1-CUL4-associated factor 12, is a 453 amino acid cytoplasmic protein that contains 4 WD-repeats. WDR40A is highly expressed in some cancer cell lines, lung cancer tissues and normal testis. A probable substrate receptor for CUL4-DDB1 E3 ubiquitinprotein ligase complex, WRD40A is suggested to interact with DDB1. WDR40A is encoded by a gene mapping to human chromosome 9p13.3. Human chromosome 9 houses over 900 genes and comprises nearly 4% of the human genome.

REFERENCES

- Nabeshima, K., et al. 1991. Partial sequencing and characterization of the tumor cell-derived collagenase stimulatory factor. Arch. Biochem. Biophys. 285: 90-96.
- Miyauchi, T., et al. 1991. The basigin group of the immunoglobulin superfamily: complete conservation of a segment in and around transmembrane domains of human and mouse basigin and chicken HT7 antigen. J. Biochem. 110: 770-774.
- Kasinrerk, W., et al. 1992. Human leukocyte activation antigen M6, a member of the Ig superfamily, is the species homologue of rat 0X-47, mouse basigin, and chicken HT7 molecule. J. Immunol. 149: 847-854.
- 4. van der Voorn, L. and Ploegh, H.L. 1992. The WD-40 repeat. FEBS Lett. 307: 131-134.
- 5. Jabs, E.W., et al. 1994. Jackson-Weiss and Crouzon syndromes are allelic with mutations in fibroblast growth factor receptor 2. Nat. Genet. 8: 275-279.
- Biswas, C., et al. 1995. The human tumor cell-derived collagenase stimulatory factor (renamed EMMPRIN) is a member of the immunoglobulin superfamily. Cancer Res. 55: 434-439.
- Guo, H., et al. 1998. Characterization of the gene for human EMMPRIN, a tumor cell surface inducer of matrix metalloproteinases. Gene 220: 99-108.
- 8 Ochrietor, J.D., et al. 2003. Retina-specific expression of 5A11/Basigin-2, a member of the immunoglobulin gene superfamily. Invest. Ophthalmol. Vis. Sci. 44: 4086-4096.
- 9. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. Genome Res. 13: 2265-2270.

CHROMOSOMAL LOCATION

Genetic locus: DCAF12 (human) mapping to 9p13.3; Dcaf12 (mouse) mapping to 4 A5.

SOURCE

WDR40A (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of WDR40A 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-137918 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

WDR40A (D-12) is recommended for detection of WDR40A 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); non cross-reactive with WDR40B or WDR40C.

Suitable for use as control antibody for WDR40A siRNA (h): sc-92817, WDR40A siRNA (m): sc-155282, WDR40A shRNA Plasmid (h): sc-92817-SH, WDR40A shRNA Plasmid (m): sc-155282-SH, WDR40A shRNA (h) Lentiviral Particles: sc-92817-V and WDR40A shRNA (m) Lentiviral Particles: sc-155282-V.

Molecular Weight of WDR40A: 51 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) Immunofluo-rescence: 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, **D0 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.

PROTOCOLS

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