SANTA CRUZ BIOTECHNOLOGY, INC.

WDR51A (I-12): sc-100244

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, which 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 involving signal transduction, apoptosis, transcriptional regulation, cell cycle control. WD repeats serve as sites for protein-protein interaction and some seem to mediate the assembly of protein complexes. Containing 7 WD repeats, WDR51A (WD repeat-containing protein 51A) is a 407 amino acid protein that is alternatively expressed as 2 isoforms. The gene encoding WDR51A maps to human chromosome 3, which is made up of about 214 million bases encoding over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Neer, E.J., et al. 1994. The ancient regulatory-protein family of WD-repeat proteins. Nature 371: 297-300.
2. Garcia-Higuera, I., et al. 1996. Folding of proteins with WD-repeats: comparison of six members of the WD-repeat superfamily to the G protein β subunit. Biochemistry 35: 13985-13994.
3. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.
4. Yu, L., et al. 2000. Thirty-plus functional families from a single motif. Protein Sci. 9: 2470-2476.
5. Li, D., et al. 2001. WD-repeat proteins: structure characteristics, biological function, and their involvement in human diseases. Cell. Mol. Life Sci. 58: 2085-2097.
6. van Nocker, S., et al. 2003. The WD-repeat protein superfamily in Arabidopsis: conservation and divergence in structure and function. BMC Genomics 4: 50.
7. Bechtel, S., et al. 2007. The full-ORF clone resource of the German cDNA Consortium. BMC Genomics 8: 399.
8. Dephoure, N., et al. 2008. A quantitative atlas of mitotic phosphorylation. Proc. Natl. Acad. Sci. USA 105: 10762-10767.
9. Hudson, A.M., et al. 2008. Phylogenetic, structural and functional relationships between WD- and Kelch-repeat proteins. Subcell. Biochem. 48: 6-19.

CHROMOSOMAL LOCATION

Genetic locus: POC1A (human) mapping to 3p21.2; Poc1a (mouse) mapping to 9 F1.

SOURCE

WDR51A (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WDR51A 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-100244 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

WDR51A (I-12) is recommended for detection of WDR51A 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); non cross-reactive with other WDR family members.

Suitable for use as control antibody for WDR51A siRNA (h): sc-78414, WDR51A siRNA (m): sc-155292, WDR51A shRNA Plasmid (h): sc-78414-SH, WDR51A shRNA Plasmid (m): sc-155292-SH, WDR51A shRNA (h) Lentiviral Particles: sc-78414-V and WDR51A shRNA (m) Lentiviral Particles: sc-155292-V.

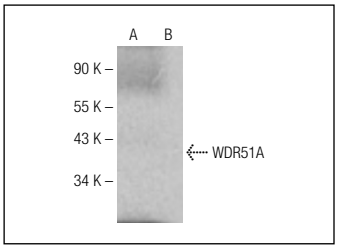
Molecular Weight of WDR51A: 45 kDa.

Positive Controls: WDR51A (h): 293T Lysate: sc-116025.

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



WDR51A (I-12): sc-100244. Western blot analysis of WDR51A expression in non-transfected: sc-117752 (**A**) and human WDR51A transfected: sc-112065 (**B**) 293T whole cell lysates.

RESEARCH USE

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