

WDR53 (C-8): sc-514527

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 and cell cycle control. WD repeats serve as sites for protein-protein interaction and some seem to mediate the assembly of protein complexes. WDR53 (WD repeat-containing protein 53) is a 358 amino acid protein that contains 5 WD repeats. The gene encoding WDR53 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.

CHROMOSOMAL LOCATION

Genetic locus: WDR53 (human) mapping to 3q29; Wdr53 (mouse) mapping to 16 B2.

SOURCE

WDR53 (C-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 69-86 within an internal region of WDR53 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

WDR53 (C-8) is available conjugated to agarose (sc-514527 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514527 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514527 PE), fluorescein (sc-514527 FITC), Alexa Fluor® 488 (sc-514527 AF488), Alexa Fluor® 546 (sc-514527 AF546), Alexa Fluor® 594 (sc-514527 AF594) or Alexa Fluor® 647 (sc-514527 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514527 AF680) or Alexa Fluor® 790 (sc-514527 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514527 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

WDR53 (C-8) is recommended for detection of WDR53 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for WDR53 siRNA (h): sc-78044, WDR53 siRNA (m): sc-155295, WDR53 shRNA Plasmid (h): sc-78044-SH, WDR53 shRNA Plasmid (m): sc-155295-SH, WDR53 shRNA (h) Lentiviral Particles: sc-78044-V and WDR53 shRNA (m) Lentiviral Particles: sc-155295-V.

Molecular Weight of WDR53: 39 kDa.

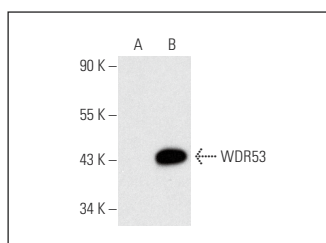
Positive Controls: WDR53 (m): 293T Lysate: sc-124629.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



WDR53 (C-8): sc-514527. Western blot analysis of WDR53 expression in non-transfected: sc-117752 (A) and human WDR53 transfected: sc-124629 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO 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 for detailed protocols and support products.