SANTA CRUZ BIOTECHNOLOGY, INC.

WDR55 (A-5): sc-514225

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, 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. WDR55 (WD repeat domain 55) is a 383 amino acid nuclear and cytoplasmic protein that contains seven WD repeats. Belonging to the WD repeat WDR55 family, WDR55 acts as a modulator of rRNA synthesis and may play a central role during organogenesis. WDR55 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 5q31.3.

REFERENCES

1. Neer, E.J., Schmidt, C.J., Nambudripad, R. and Smith, T.F. 1994. The ancient regulatory-protein family of WD-repeat proteins. Nature 371: 297-300.
2. Garcia-Higuera, I., Fenoglio, J., Li, Y., Lewis, C., Panchenko, M.P., Reiner, O., Smith, T.F. and Neer, E.J. 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., Gaitatzes, C., Saxena, K. and Neer, E.J. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.
4. Yu, L., Gaitatzes, C., Neer, E. and Smith, T.F. 2000. Thirty-plus functional families from a single motif. Protein Sci. 9: 2470-2476.
5. Li, D. and Roberts, R. 2001. WD-repeat proteins: structure characteristics, biological function, and their involvement in human diseases. Cell. Mol. Life Sci. 58: 2085-2097.

CHROMOSOMAL LOCATION

Genetic locus: WDR55 (human) mapping to 5q31.3; Wdr55 (mouse) mapping to 18 B2.

SOURCE

WDR55 (A-5) is a mouse monoclonal antibody raised against amino acids 28-120 mapping near the C-terminus of WDR55 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

WDR55 (A-5) is available conjugated to agarose (sc-514225 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514225 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514225 PE), fluorescein (sc-514225 FITC), Alexa Fluor® 488 (sc-514225 AF488), Alexa Fluor® 546 (sc-514225 AF546), Alexa Fluor® 594 (sc-514225 AF594) or Alexa Fluor® 647 (sc-514225 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514225 AF680) or Alexa Fluor® 790 (sc-514225 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

WDR55 (A-5) is recommended for detection of WDR55 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for WDR55 siRNA (h): sc-91813, WDR55 siRNA (m): sc-155297, WDR55 shRNA Plasmid (h): sc-91813-SH, WDR55 shRNA Plasmid (m): sc-155297-SH, WDR55 shRNA (h) Lentiviral Particles: sc-91813-V and WDR55 shRNA (m) Lentiviral Particles: sc-155297-V.

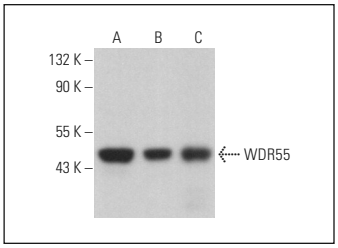
Molecular Weight of WDR55 isoforms: 42/18 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or SUP-T1 whole cell lysate: sc-364796.

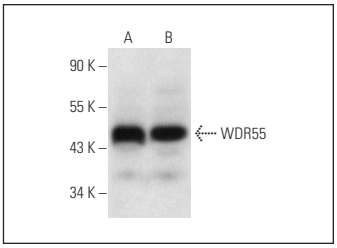
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



WDR55 (A-5): sc-514225. Western blot analysis of WDR55 expression in K-562 (**A**), SUP-T1 (**B**) and HL-60 (**C**) whole cell lysates.



WDR55 (A-5): sc-514225. Western blot analysis of WDR55 expression in K-562 (**A**) and Jurkat (**B**) 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.

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