SANTA CRUZ BIOTECHNOLOGY, INC.

WDR77 (C-2): sc-376549

SANTA CRUZ BIOTECHNOLOGY

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. Proteins that contain WD-repeats participate in a wide range of cellular functions, however they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. WDR77 (WD-repeat domain 77), also known as MEP50, is a 342 amino acid protein that contains five WD-repeats and is thought to regulate the early assembly of U snRNPs. Additionally, WDR77 functions as a component of a PRMT5-containing methyltransferase complex that converts arginines to dimethylarginines in a variety of spliceosomal Sm proteins. This conversion subsequently targets Sm proteins to the survival of motor neurons (SMN) complex where they are assembled into ribonucleoprotein core particles. Based on its involvement with the methyltransferase complex, WDR77 is thought to be involved in the development of testicular tumors, suggesting a role in carcinogenesis.

REFERENCES

1. Friesen, W.J., et al. 2002. A novel WD repeat protein component of the methylosome binds Sm proteins. J. Biol. Chem. 277: 8243-8247.
2. Licciardo, P., et al. 2003. The FCP1 phosphatase interacts with RNA polymerase II and with MEP50 a component of the methylosome complex involved in the assembly of snRNP. Nucleic Acids Res. 31: 999-1005.
3. Cavey, M., et al. 2005. *Drosophila* valois encodes a divergent WD protein that is required for Vasa localization and Oskar protein accumulation. Development 132: 459-468.
4. Anne, J. and Mechler, B.M. 2005. Valois, a component of the nuage and pole plasm, is involved in assembly of these structures, and binds to Tudor and the methyltransferase Capsuléen. Development 132: 2167-2177.

CHROMOSOMAL LOCATION

Genetic locus: WDR77 (human) mapping to 1p13.2.

SOURCE

WDR77 (C-2) is a mouse monoclonal antibody raised against amino acids 43-342 mapping at the C-terminus of WDR77 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.

WDR77 (C-2) is available conjugated to agarose (sc-376549 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376549 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376549 PE), fluorescein (sc-376549 FITC), Alexa Fluor® 488 (sc-376549 AF488), Alexa Fluor® 546 (sc-376549 AF546), Alexa Fluor® 594 (sc-376549 AF594) or Alexa Fluor® 647 (sc-376549 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376549 AF680) or Alexa Fluor® 790 (sc-376549 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

WDR77 (C-2) is recommended for detection of WDR77 of 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).

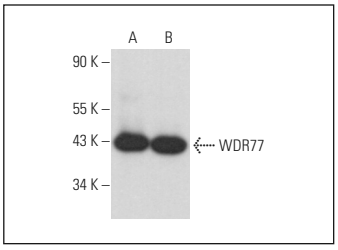
Suitable for use as control antibody for WDR77 siRNA (h): sc-88686, WDR77 shRNA Plasmid (h): sc-88686-SH and WDR77 shRNA (h) Lentiviral Particles: sc-88686-V.

Molecular Weight (predicted) of WDR77: 37 kDa.

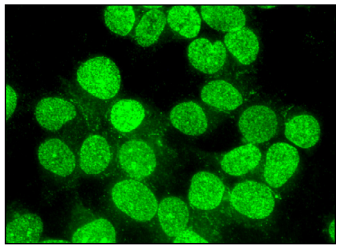
Molecular Weight (observed) of WDR77: 38-46 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, K-562 whole cell lysate: sc-2203 or SJRH30 cell lysate: sc-2287.

DATA



WDR77 (C-2): sc-376549. Western blot analysis of WDR77 expression in K-562 (**A**) and NAMALWA (**B**) whole cell lysates.



WDR77 (C-2): sc-376549. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Lu, X., et al. 2018. PRMT5 interacts with the BCL6 oncoprotein and is required for germinal center formation and lymphoma cell survival. Blood 132: 2026-2039.
2. Zhu, F., et al. 2020. Fungal dysbiosis aggravates pouchitis in a rat model of ileal pouch anal anastomosis. Inflamm. Bowel Dis. 26: 1831-1842.

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.