

WDR77 (FG-4): sc-100899

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.

CHROMOSOMAL LOCATION

Genetic locus: WDR77 (human) mapping to 1p13.2; Wdr77 (mouse) mapping to 3 F2.2.

SOURCE

WDR77 (FG-4) is a mouse monoclonal antibody raised against recombinant WDR77 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

WDR77 (FG-4) is recommended for detection of WDR77 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), immunohistochemistry (including paraffin-embedded sections) (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 siRNA (m): sc-155317, WDR77 shRNA Plasmid (h): sc-88686-SH, WDR77 shRNA Plasmid (m): sc-155317-SH, WDR77 shRNA (h) Lentiviral Particles: sc-88686-V and WDR77 shRNA (m) Lentiviral Particles: sc-155317-V.

Molecular Weight (predicted) of WDR77: 37 kDa.

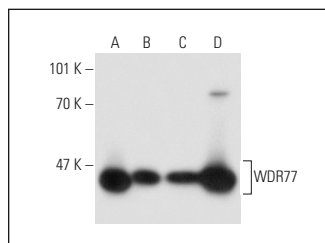
Molecular Weight (observed) of WDR77: 38-46 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287, Sol8 cell lysate: sc-2249 or F9 cell lysate: sc-2245.

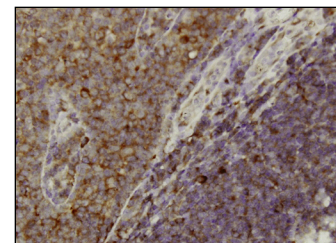
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



WDR77 (FG-4): sc-100899. Western blot analysis of WDR77 expression in SJRH30 (A), Sol8 (B), I-11.15 (C) and F9 (D) whole cell lysates.



WDR77 (FG-4): sc-100899. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Patel, S.R., et al. 2012. Epigenetic mechanisms of Groucho/Grg/TLE mediated transcriptional repression. *Mol. Cell* 45: 185-195.
- Wei, T.Y., et al. 2014. Methylosome protein 50 promotes androgen- and estrogen-independent tumorigenesis. *Cell. Signal.* 26: 2940-2950.
- Tamiya, H., et al. 2018. SHARPIN-mediated regulation of protein arginine methyltransferase 5 controls melanoma growth. *J. Clin. Invest.* 128: 517-530.
- Calabretta, S., et al. 2018. Loss of PRMT5 promotes PDGFRα degradation during oligodendrocyte differentiation and myelination. *Dev. Cell* 46: 426-440.

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.