

WDR1 (B-8): sc-393130

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. With 11 WD repeats, WDR1 (WD repeat domain 1), also known as AIP1 or NORI-1, is a 606 amino acid protein that localizes to the cytoskeleton and is a member of the WD repeat AIP1 family. Existing as two alternatively spliced isoforms, WDR1 induces disassembly of actin filaments in conjunction with ADF/cofilin family proteins.

REFERENCES

- Shin, D.H., et al. 2004. Subcellular localization of WD40 repeat 1 protein in PC12 rat pheochromocytoma cells. *Neurosci. Lett.* 367: 399-403.
- Fujibuchi, T., et al. 2005. AIP1/WDR1 supports mitotic cell rounding. *Biochem. Biophys. Res. Commun.* 327: 268-275.
- Saeki, M., et al. 2006. Monad, a WD40 repeat protein, promotes apoptosis induced by TNF- α . *Biochem. Biophys. Res. Commun.* 342: 568-572.
- Kile, B.T., et al. 2007. Mutations in the cofilin partner Aip1/WDR1 cause autoinflammatory disease and macrothrombocytopenia. *Blood* 110: 2371-2380.
- Suh, M.W., et al. 2007. WDR1 expression in the normal and noise-damaged chick vestibule. *J. Vestib. Res.* 17: 163-170.
- Kato, A., et al. 2008. Critical roles of Actin-interacting protein 1 in cytokinesis and chemotactic migration of mammalian cells. *Biochem. J.* 414: 261-270.
- Adler, H.J., et al. 2008. WDR1 presence in the songbird basilar papilla. *Hear. Res.* 240: 102-111.

CHROMOSOMAL LOCATION

Genetic locus: WDR1 (human) mapping to 4p16.1; Wdr1 (mouse) mapping to 5 B3.

SOURCE

WDR1 (B-8) is a mouse monoclonal antibody raised against amino acids 425-606 mapping at the C-terminus of WDR1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG γ 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

WDR1 (B-8) is recommended for detection of WDR1 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), 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 WDR1 siRNA (h): sc-89063, WDR1 siRNA (m): sc-155255, WDR1 shRNA Plasmid (h): sc-89063-SH, WDR1 shRNA Plasmid (m): sc-155255-SH, WDR1 shRNA (h) Lentiviral Particles: sc-89063-V and WDR1 shRNA (m) Lentiviral Particles: sc-155255-V.

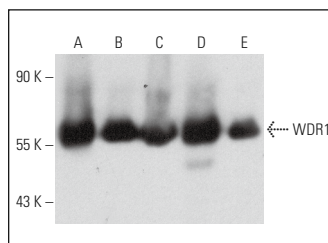
Molecular Weight of WDR1: 67 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, C2C12 whole cell lysate: sc-364188 or Sol8 cell lysate: sc-2249.

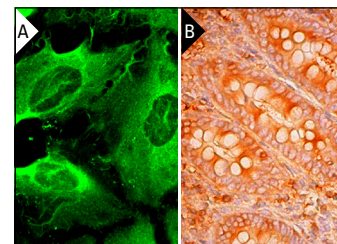
RECOMMENDED SUPPORT REAGENTS

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

DATA



WDR1 (B-8): sc-393130. Western blot analysis of WDR1 expression in Raji (A), Sol8 (B), C2C12 (C), C6 (D) and NRK (E) whole cell lysates.



WDR1 (B-8): sc-393130. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Xie, B., et al. 2022. Proteomic mapping and targeting of mitotic pericentriolar material in tumors bearing centrosome amplification. *Cancer Res.* 82: 2576-2592.

RESEARCH USE

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