

# WDR1 (G-13): sc-160907

## 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

1. Shin, D.H., et al. 2004. Subcellular localization of WD40 repeat 1 protein in PC12 rat pheochromocytoma cells. *Neurosci. Lett.* 367: 399-403.
2. Fujibuchi, T., et al. 2005. AIP1/WDR1 supports mitotic cell rounding. *Biochem. Biophys. Res. Commun.* 327: 268-275.
3. Saeki, M., et al. 2006. Monad, a WD40 repeat protein, promotes apoptosis induced by TNF- $\alpha$ . *Biochem. Biophys. Res. Commun.* 342: 568-572.
4. Kile, B.T., et al. 2007. Mutations in the cofilin partner Aip1/Wdr1 cause autoinflammatory disease and macrothrombocytopenia. *Blood* 110: 2371-2380.
5. Suh, M.W., et al. 2007. WDR1 expression in the normal and noise-damaged chick vestibule. *J. Vestib. Res.* 17: 163-170.
6. 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.
7. 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 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WDR1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160907 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

WDR1 (G-13) is recommended for detection of WDR1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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); non cross-reactive with other WDR family members.

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.

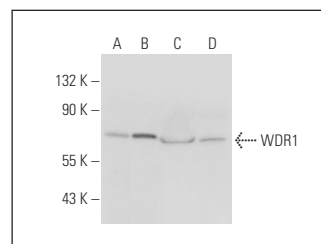
Molecular Weight of WDR1: 67 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2255, JAR cell lysate: sc-2276 or HT-1080 whole cell lysate: sc-364183.

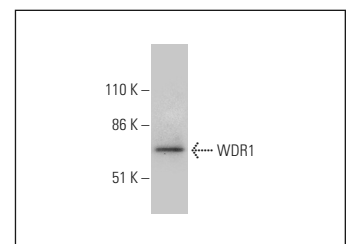
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



WDR1 (G-13): sc-160907. Western blot analysis of WDR1 expression in JAR (A), HT-1080 (B) and MOLT-4 (C) whole cell lysates and mouse skeletal muscle tissue extract (D).



WDR1 (G-13): sc-160907. Western blot analysis of WDR1 expression in CCRF-CEM whole cell lysate.

## STORAGE

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

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Try **WDR1 (B-10): sc-393159** or **WDR1 (B-8): sc-393130**, our highly recommended monoclonal alternatives to WDR1 (G-13).