

# WDR7 (K-17): sc-85209

## 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. With nine WD repeats, WDR7 (WD repeat-containing protein 7), also known as TGF- $\beta$  resistance-associated protein (TRAG) and rabconnectin-3  $\beta$ , is a 1,490 amino acid protein that is abundantly expressed in brain and colocalizes with rabconnectin-3 on synaptic vesicles. Unlike rabconnectin-3, WDR7 binds directly to Rab3 GDP/GTP exchange protein and may therefore play a role in cell proliferation and survival. There are two isoforms of WDR7 that are produced as a result of alternative splicing events.

## REFERENCES

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4. Sanders, S., Keck-Waggoner, C.L., Zimonjic, D.B., Popescu, N.C. and Thorgerisson, S.S. 2000. Assignment of WDR7 (alias TRAG, TGF- $\beta$  resistance associated gene) to orthologous regions of human chromosome 18q21.1 $\rightarrow$ q22 and mouse chromosome 18D.1-E.3 by fluorescence *in situ* hybridization. *Cytogenet. Cell Genet.* 88: 324-325.
5. Yu, L., Gaitatzes, C., Neer, E. and Smith, T.F. 2000. Thirty-plus functional families from a single motif. *Protein Sci.* 9: 2470-2476.
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## CHROMOSOMAL LOCATION

Genetic locus: WDR7 (human) mapping to 18q21.31; Wdr7 (mouse) mapping to 18 E1.

## SOURCE

WDR7 (K-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of WDR7 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85209 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

WDR7 (K-17) is recommended for detection of WDR7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with WDR4 and WDR5.

WDR7 (K-17) is also recommended for detection of WDR7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for WDR7 siRNA (h): sc-76913, WDR7 siRNA (m): sc-155310, WDR7 shRNA Plasmid (h): sc-76913-SH, WDR7 shRNA Plasmid (m): sc-155310-SH, WDR7 shRNA (h) Lentiviral Particles: sc-76913-V and WDR7 shRNA (m) Lentiviral Particles: sc-155310-V.

Molecular Weight of WDR7: 164 kDa.

Positive Controls: Rat brain extract: sc-2392.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.