# WDR48 (C-12): sc-99716



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, 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 eight WD repeats, WDR48 (WD repeat-containing protein 48), also known as USP1-associated factor 1 and p80, is a 677 amino acid protein that functions to regulate deubiquitinating complexes via activation of USP1, USP12 and USP46. WDR48 enhances deubiquitination by increasing catalytic turnover without increasing the affinity of deubiquitinating enzymes for the substrate. WDR48 is ubiquitously expressed and is mainly localized to the cytoplasm. There are five isoforms of WDR48 that are expressed as a result of alternative splicing events.

### **REFERENCES**

- Neer, E.J., Schmidt, C.J., Nambudripad, R. and Smith, T.F. 1994. The ancient regulatory-protein family of WD-repeat proteins. Nature 371: 297-300.
- Smith, T.F., Gaitatzes, C., Saxena, K. and Neer, E.J. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.
- Yu, L., Gaitatzes, C., Neer, E. and Smith, T.F. 2000. Thirty-plus functional families from a single motif. Protein Sci. 9: 2470-2476.
- 4. Park, J., Lee, B.S., Choi, J.K., Means, R.E., Choe, J. and Jung, J.U. 2002. Herpesviral protein targets a cellular WD repeat endosomal protein to downregulate T lymphocyte receptor expression. Immunity 17: 221-233.
- Park, J., Cho, N.H., Choi, J.K., Feng, P., Choe, J. and Jung, J.U. 2003.
  Distinct roles of cellular Lck and p80 proteins in herpesvirus saimiri Tip function on lipid rafts. J. Virol. 77: 9041-9051.
- 6. Cohn, M.A., Kowal, P., Yang, K., Haas, W., Huang, T.T., Gygi, S.P. and D'Andrea, A.D. 2007. A UAF1-containing multisubunit protein complex regulates the Fanconi anemia pathway. Mol. Cell 28: 786-797.
- Côte-Martin, A., Moody, C., Fradet-Turcotte, A., D'Abramo, C.M., Lehoux, M., Joubert, S., Poirier, G.G., Coulombe, B., Laimins, L.A. and Archambault, J. 2008. Human papillomavirus E1 helicase interacts with the WD repeat protein p80 to promote maintenance of the viral genome in keratinocytes. J. Virol. 82: 1271-1283.

### CHROMOSOMAL LOCATION

Genetic locus: WDR48 (human) mapping to 3p22.2; Wdr48 (mouse) mapping to 9 F4.

# **SOURCE**

WDR48 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of WDR48 of human origin.

#### **PRODUCT**

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

Blocking peptide available for competition studies, sc-99716 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### **APPLICATIONS**

WDR48 (C-12) is recommended for detection of WDR48 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

WDR48 (C-12) is also recommended for detection of WDR48 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for WDR48 siRNA (h): sc-77917, WDR48 siRNA (m): sc-155290, WDR48 shRNA Plasmid (h): sc-77917-SH, WDR48 shRNA Plasmid (m): sc-155290-SH, WDR48 shRNA (h) Lentiviral Particles: sc-77917-V and WDR48 shRNA (m) Lentiviral Particles: sc-155290-V.

Molecular Weight of WDR48: 76 kDa.

#### **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) 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.

## **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 or our catalog for detailed protocols and support products.



Try **WDR48 (E-4):** sc-514473, our highly recommended monoclonal alternative to WDR48 (C-12).