

# WDR40B (D-13): sc-138724

## 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. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. As a member of the WD repeat DCAF12 protein family WDR40B (WD-repeat-containing protein 40B), also known as DDB1- and CUL4-associated factor 12-like protein 1, is a 463 amino acid protein that contains four WD-repeats. The gene encoding WDR40B maps to human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

## REFERENCES

1. Neer, E.J., et al. 1994. The ancient regulatory-protein family of WD-repeat proteins. *Nature* 371: 297-300.
2. Coy, J.F., et al. 1996. Isolation, differential splicing and protein expression of a DNase on the human X chromosome. *Cell Death Differ.* 3: 199-206.
3. Rodriguez, A.M., et al. 1997. Identification, localization, and expression of two novel human genes similar to deoxyribonuclease I. *Genomics* 42: 507-513.
4. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. *Trends Biochem. Sci.* 24: 181-185.
5. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Res.* 14: 2121-2127.
6. Ross, M.T., et al. 2005. The DNA sequence of the human X chromosome. *Nature* 434: 325-337.

## CHROMOSOMAL LOCATION

Genetic locus: DCAF12L1 (human) mapping to Xq25.

## SOURCE

WDR40B (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WDR40B of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138724 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

WDR40B (D-13) is recommended for detection of WDR40B of 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 WDR40A or WDR40C.

Suitable for use as control antibody for WDR40B siRNA (h): sc-90968, WDR40B shRNA Plasmid (h): sc-90968-SH and WDR40B shRNA (h) Lentiviral Particles: sc-90968-V.

Molecular Weight of WDR40B: 51 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.

## 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.