

WDR82 (K-14): sc-103325

BACKGROUND

WDR82 (WD repeat-containing protein 82), also known as TMEM113 (transmembrane protein 113) or WDR82A, is a 313 amino acid protein that contains six WD repeats and belongs to the WD repeat SWD2 family. Localized to the nucleus, WDR82 is an integral component of the Set1 methyltransferase complex that contains several proteins, including Set1A and Set1B, and functions to specifically methylate the Lysine 4 (Lys 4) residue of Histone H3. The methyltransferase activity of the Set1 complex is crucial for proper H3-mediated assembly of an active chromatin structure that allows transcription to occur. Due its involvement in the Set1 complex, WDR82 may play an essential role in chromatin-modifying events that are permissive to transcription.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611059. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Lee, J.H. and Skalnik, D.G. 2005. CpG-binding protein (CXXC finger protein 1) is a component of the mammalian Set1 Histone H3-Lys 4 methyltransferase complex, the analogue of the yeast Set1/COMPASS complex. *J. Biol. Chem.* 280: 41725-41731.
3. Higa, L.A., Wu, M., Ye, T., Kobayashi, R., Sun, H. and Zhang, H. 2006. CUL4-DDB1 ubiquitin ligase interacts with multiple WD40-repeat proteins and regulates histone methylation. *Nat. Cell Biol.* 8: 1277-1283.
4. Lee, J.H. and Skalnik, D.G. 2008. WDR82 is a C-terminal domain-binding protein that recruits the Set1A Histone H3-Lys 4 methyltransferase complex to transcription start sites of transcribed human genes. *Mol. Cell. Biol.* 28: 609-618.

CHROMOSOMAL LOCATION

Genetic locus: WDR82 (human) mapping to 3p21.2; Wdr82 (mouse) mapping to 9 F1.

SOURCE

WDR82 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WDR82 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-103325 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

WDR82 (K-14) is recommended for detection of WDR82 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.

Suitable for use as control antibody for WDR82 siRNA (h): sc-78161, WDR82 siRNA (m): sc-155322, WDR82 shRNA Plasmid (h): sc-78161-SH, WDR82 shRNA Plasmid (m): sc-155322-SH, WDR82 shRNA (h) Lentiviral Particles: sc-78161-V and WDR82 shRNA (m) Lentiviral Particles: sc-155322-V.

Molecular Weight of WDR82: 35 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.