

WDR82 (A-2): sc-518243

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-Lys4 methyltransferase complex, the analogue of the yeast Set1/COMPASS complex. *J. Biol. Chem.* 280: 41725-41731.
3. Higa, L.A., et al. 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., et al. 2007. Identification and characterization of the human Set1B Histone H3-Lys4 methyltransferase complex. *J. Biol. Chem.* 282: 13419-13428.
5. Lee, J.H. and Skalnik, D.G. 2008. Wdr82 is a C-terminal domain-binding protein that recruits the Set1A Histone H3-Lys4 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.

SOURCE

WDR82 (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 92-112 of WDR82 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 for detailed protocols and support products.

APPLICATIONS

WDR82 (A-2) is recommended for detection of WDR82 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

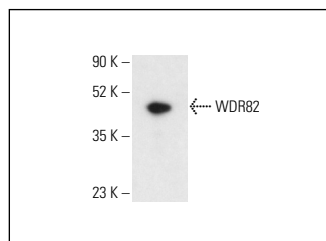
Suitable for use as control antibody for WDR82 siRNA (h): sc-78161, WDR82 shRNA Plasmid (h): sc-78161-SH and WDR82 shRNA (h) Lentiviral Particles: sc-78161-V.

Molecular Weight of WDR82: 35 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



WDR82 (A-2): sc-518243. Western blot analysis of human recombinant WDR82 fusion protein. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

RESEARCH USE

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