

Anti-Human WDHD1, monoclonal (clone R1251.1.1B10)



Recommended name: WD repeat and HMG-box DNA-binding protein 1
Alternative name(s): Acidic nucleoplasmic DNA-binding protein 1; Short name: And-1

Cat. No. m15-104
Lot. No. 20150910.IG

Quantity: 100 µg
Storage: -20 °C

FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

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UniProt / NCBI Summary

UniProt

Primary Accession # [O75717](#)
Secondary Accession # [C9JW18](#); [F6W0U7](#)

NCBI

GI # [5901892](#)
GenID [11169](#)
Accession # [NP_009017.1](#)
GenBank Nucleotide # [NM_007086.3](#)

Molecular Weight 125,967 Da (1,129 aa)

The protein encoded by this gene contains multiple N-terminal WD40 domains and a C-terminal high mobility group (HMG) box. WD40 domains are found in a variety of eukaryotic proteins and may function as adaptor/regulatory modules in signal transduction, pre-mRNA processing and cytoskeleton assembly. HMG boxes are found in many eukaryotic proteins involved in chromatin assembly, transcription and replication. Alternative splicing results in two transcript variants encoding different isoforms.

Subcellular location: nucleus

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Physical Characteristics

Quantity: 100 µg

Concentration: 1.0 mg/ml

Host / Isotype: mouse IgG1

Clonality: monoclonal; ID R1251.1.1B10

Immunogen: recombinant protein corresponding to aa residues 933-1092 of human WDHD1

Purification: affinity-chromatography using Protein G

Formulation: 30% glycerol, 1x PBS, 0.02% sodium azide

Specificity: monospecific for human WDHD1; see microarray analysis below

Reactivity: human

Stability/Storage: 12 months long term: -20 °C; short term: 4 °C; avoid freeze-thaw cycles; aliquot as required

Handling Notes: small volumes of antibody may occasionally become entrapped in the seal of the product vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container cap.

Tested Research Applications

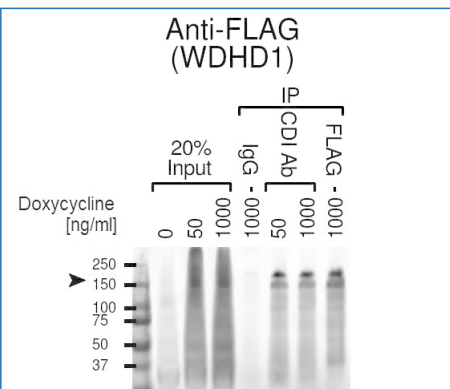
Immunoprecipitation: recommended; see below.

ChIP-Seq: recommended; see page 2

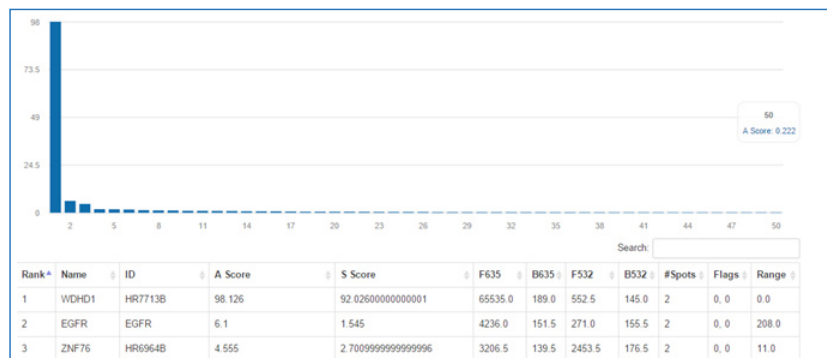
Western Blot: tested on cells transfected with a construct encoding WDHD1; utility on native cells under evaluation

Octet: Recommended.

Quality Assurance



Tet-ON HeLa cells were transfected with construct encoding WDHD1 (AJ006266.1) with an N-terminal fusion of FLAG, YFP (Venus) and V5 tags under a tet-inducible promoter. These cells were stimulated with 0, 50 or 1000 ng/ml doxycycline. Immunoprecipitation (IP) was carried out using 5µg of either IgG, CDI mAb Anti-WDHD1 (cloneID# R1251.1.1B10) or 1 µg of FLAG-M2. Immunoblotting was performed using rabbit Anti-FLAG (1:1000, Cell Signaling #2368).



Specificity Analysis with HuProt™ Human Proteome Microarray: Anti Human WDHD1 (clone R1251.1.1B10) was analyzed using the CDI HuProt™ Human Proteome Microarray.

For more information on A/S scores and how they relate to specificity, see page 2.

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Continued from page 1.

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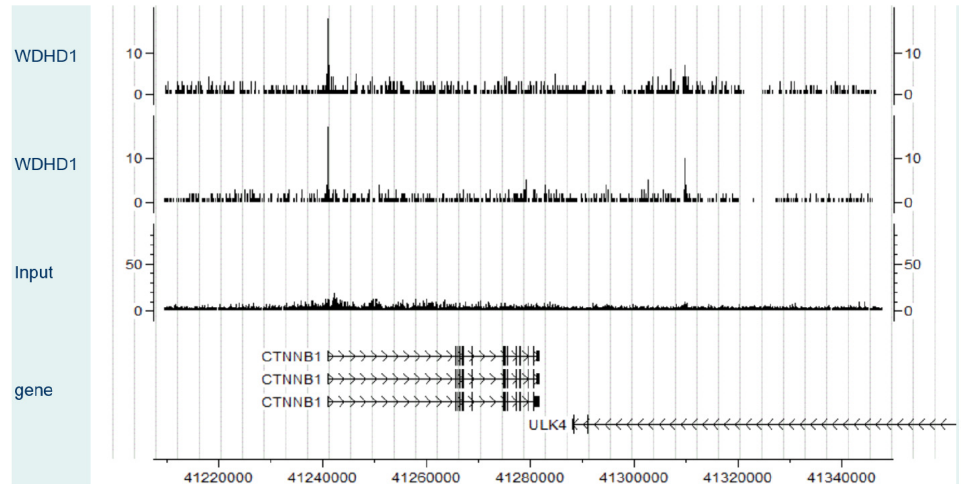
Jaramillo-Lambert A, Hao J, Xiao H, Li Y, Han Z, Zhu W (2013) Acidic nucleoplasmic DNA-binding protein (And-1) controls chromosome congression by regulating the assembly of centromere protein A (CENP-A) at centromeres. *J Biol Chem* **288**:1480-1488. [\[PubMed\]](#)

Hao J, de Renty C, Li Y, Xiao H, Kemp MG, Han Z, DePamphilis ML, Zhu W (2015) And-1 coordinates with Claspin for efficient Chk1 activation in response to replication stress. *EMBO J* **34**:2096-2110. [\[PubMed\]](#)

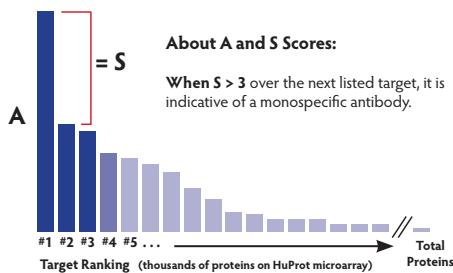
Hsieh CL, Lin CL, Liu H, Chang YJ, Shih CJ, Zhong CZ, Lee SC, Tan BC (2011) WDHD1 modulates the post-transcriptional step of the centromeric silencing pathway. *Nucleic Acids Res* **39**:4048-4062. [\[PubMed\]](#)

Tested Research Applications

ChIP-Seq: Recommended



The ChIP was performed with chromatin from 10 million MCF7 cells and 3 µg of Anti-WDHD1 (cloneID # R1251.1.1B10) antibody. The ChIP DNA was sequenced on an Illumina HiSeq platform and read counts were calculated at consecutive 100 bp bins across the human genome hg19. Normalized read-count levels for ChIP-seq of WDHD1 (R1251.1.1B10) and control (Input) around the CSRNP1 and CTNNB1 loci are displayed in the CisGenome browser.



Statistical Analysis: Thousands of GenePix data points (from the microarray) are analyzed in terms of signal strength and ranked accordingly.

SUMMARY: The A-score indicates the number of standard deviations above background seen for the mean signal bound by the target antigen. The S-score represents the difference between the A-score of the target antigen and the next best hit on the array. S-scores **greater than 3 standard deviations over the next listed target** are deemed statistically significant and indicate **highly specific antibodies**. [More info at cdi-lab.com/HighSpec.html](http://cdi-lab.com/HighSpec.html)

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