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WDR82 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20978b

Product Information

Application	WB, IHC-P-Leica, E
Primary Accession	Q6UXN9
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB51424
Calculated MW	35079

Additional Information

Gene ID	80335
Other Names	WD repeat-containing protein 82, Protein TMEM113, Swd2, WDR82, TMEM113, WDR82A
Target/Specificity	This WDR82 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 12~46 amino acids from the N-terminal region of human WDR82.
Dilution	WB~~1:1000 IHC-P-Leica~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	WDR82 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	WDR82 {ECO:0000303|PubMed:17998332, ECO:0000312|HGNC:HGNC:28826}
Function	Regulatory component of the SET1/COMPASS complex implicated in the tethering of this complex to transcriptional start sites of active genes (PubMed:17998332, PubMed:18838538, PubMed:20516061). Facilitates

histone H3 'Lys-4' methylation (H3K4me) via recruitment of the SETD1A or SETD1B to the 'Ser-5' phosphorylated C-terminal domain (CTD) of RNA polymerase II large subunit (POLR2A) (PubMed:17998332, PubMed:18838538). Component of the PNUTS-PP1 protein phosphatase complex, a protein phosphatase 1 (PP1) complex that promotes RNA polymerase II transcription pause-release, allowing transcription elongation (PubMed:39603240, PubMed:39603239). PNUTS-PP1 also plays a role in the control of chromatin structure and cell cycle progression during the transition from mitosis into interphase (PubMed:20516061). Together with ZC3H4, but independently of the SET1 complex, part of a transcription termination checkpoint that promotes transcription termination of long non-coding RNAs (lncRNAs) (PubMed:33767452, PubMed:33913806). The transcription termination checkpoint is activated by the inefficiently spliced first exon of lncRNAs and promotes transcription termination of lncRNAs and their subsequent degradation by the exosome (PubMed:33767452).

Cellular Location

Nucleus. Chromosome {ECO:0000250|UniProtKB:Q8BFQ4}. Cytoplasm {ECO:0000250|UniProtKB:Q8BFQ4}. Note=Associates with chromatin (PubMed:20516061). Recruited at sites of high RNA polymerase II occupancy (By similarity). {ECO:0000250|UniProtKB:Q8BFQ4, ECO:0000269|PubMed:20516061}

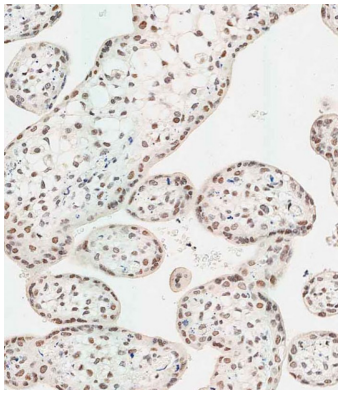
Background

Regulatory component of the SET1 complex implicated in the tethering of this complex to transcriptional start sites of active genes. Facilitates histone H3 'Lys-4' methylation via recruitment of the SETD1A or SETD1B to the 'Ser-5' phosphorylated C-terminal domain (CTD) of RNA polymerase II large subunit (POLR2A). Component of PTW/PP1 phosphatase complex, which plays a role in the control of chromatin structure and cell cycle progression during the transition from mitosis into interphase.

References

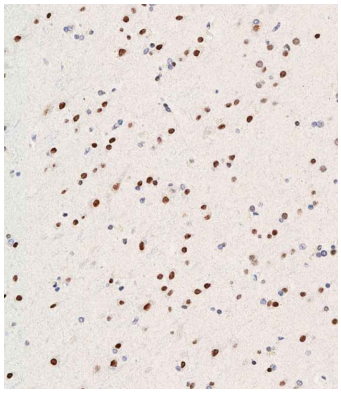
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Lee J.-H.,et al.J. Biol. Chem. 280:41725-41731(2005).
Higa L.A.,et al.Nat. Cell Biol. 8:1277-1283(2006).

Images



Immunohistochemical analysis of paraffin-embedded human placenta tissue using AP20978b performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

Immunohistochemical analysis of paraffin-embedded human brain tissue using AP20978b performed on the



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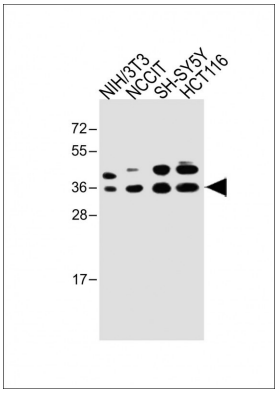

All lanes : Anti-WDR82 Antibody (N-term) at 1:1000 dilution Lane 1: NIH/3T3 whole cell lysate Lane 2: NCCIT whole cell lysate Lane 3: SH-SY5Y whole cell lysate Lane 4: HCT116 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 35 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- H3K4me3 and Wdr82 are associated with tumor progression and a favorable prognosis in human colorectal cancer.