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WDR82 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5310

Product Information

Application	IF, WB
Primary Accession	Q6UXN9
Other Accession	Q8BFQ4
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35079
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	80335
Antigen Region	12~46
Other Names	WD repeat-containing protein 82, Protein TMEM113, Swd2, WDR82, TMEM113, WDR82A
Dilution	IF~~1:25 WB~~1:1000
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.
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).
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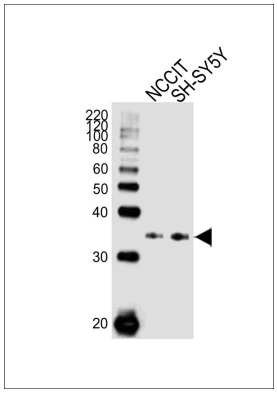
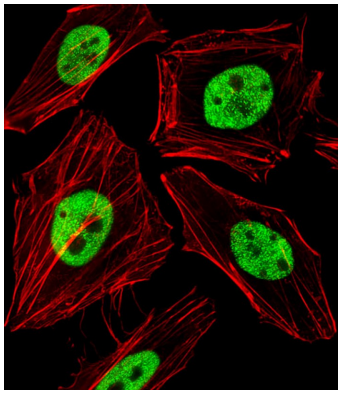
Lee J.-H.,et al.J. Biol. Chem. 280:41725-41731(2005).
Higa L.A.,et al.Nat. Cell Biol. 8:1277-1283(2006).

Images



Western blot analysis of lysates from NCCIT,SH-SY5Y cell line (from left to right), using WDR82 Antibody (N-term)(Cat. #AW5310). AW5310 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.Lysates at 20ug per lane.



Fluorescent image of Hela cells stained with WDR82 Antibody (N-term)(Cat#AW5310). AW5310 was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).