10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

WDR82 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20977b

Product Information

Application	WB, FC, IHC-P, E
Primary Accession	Q6UXN9
Reactivity	Human, Zebrafish, Mouse
Predicted	Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB51425
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 50-85 amino acids from the N-terminal region of human WDR82.
Dilution	WB~~1:1000 FC~~1:25 IHC-P~~1:250 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}

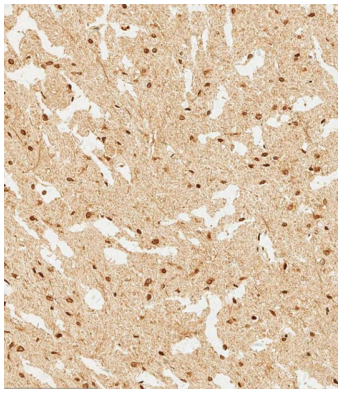
Background

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

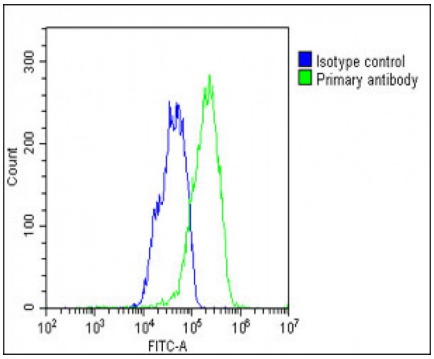
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Lee J.-H.,et al.J. Biol. Chem. 280:41725-41731(2005).
Higa L.A.,et al.Nat. Cell Biol. 8:1277-1283(2006).

Images

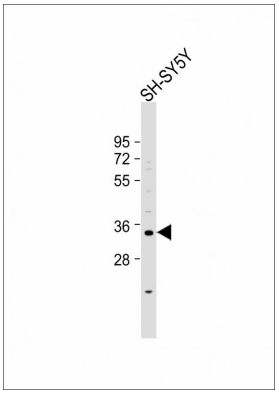


AP20977b staining WDR82 in human brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Samples were incubated with primary antibody (1/250) for 1 hours at room temperature. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

Overlay histogram showing HepG2 cells stained with



AP20977b(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP20977b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(1583138) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



Anti-WDR82 Antibody (N-term) at 1:2000 dilution + SH-SY5Y 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.