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

WDR4 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17552c

Specification

WDR4 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	P57081
Other Accession	Q9EP82, A7E3S5, NP_061139.2
Reactivity	**Human**
Predicted	**Bovine, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**45490**
Antigen Region	**146-173**

WDR4 Antibody (Center) - Additional Information

Gene ID 10785

Other Names
tRNA (guanine-N(7)-)-methyltransferase non-catalytic subunit WDR4 {ECO:0000255|HAMAP-Rule:MF_03056}, WD repeat-containing protein 4 {ECO:0000255|HAMAP-Rule:MF_03056}, WDR4 {ECO:0000255|HAMAP-Rule:MF_03056}

Target/Specificity
This WDR4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 146-173 amino acids from the Central region of human WDR4.

Dilution
WB~~1:1000
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
WDR4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

WDR4 Antibody (Center) - Protein Information

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Name WDR4

Function Non-catalytic component of the METTL1-WDR4 methyltransferase complex required for the formation of N(7)-methylguanine in a subset of RNA species, such as tRNAs, mRNAs and microRNAs (miRNAs) (PubMed:12403464, PubMed:31031083, PubMed:31031084, PubMed:36599982, PubMed:36599985, PubMed:37369656). In the METTL1-WDR4 methyltransferase complex, WDR4 acts as a scaffold for tRNA-binding (PubMed:36599982, PubMed:36599985, PubMed:37369656). Required for the formation of N(7)- methylguanine at position 46 (m7G46) in a large subset of tRNAs that contain the 5'-RAGGU-3' motif within the variable loop (PubMed:12403464, PubMed:34352206, PubMed:34352207, PubMed:36599982, PubMed:36599985, PubMed:37369656). M7G46 interacts with C13-G22 in the D-loop to stabilize tRNA tertiary structure and protect tRNAs from decay (PubMed:36599982, PubMed:36599985). Also required for the formation of N(7)-methylguanine at internal sites in a subset of mRNAs (PubMed:31031084, PubMed:37379838). Also required for methylation of a specific subset of miRNAs, such as let-7 (PubMed:31031083). Independently of METTL1, also plays a role in genome stability: localizes at the DNA replication site and regulates endonucleolytic activities of FEN1 (PubMed:26751069).

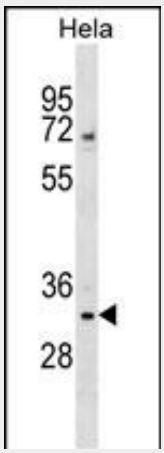
Cellular Location
Nucleus. Chromosome Note=Localizes at the site of nascent DNA synthesis

WDR4 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

WDR4 Antibody (Center) - Images



WDR4 Antibody (Center) (Cat. #AP17552c) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the WDR4 antibody detected the WDR4 protein (arrow).

WDR4 Antibody (Center) - Background

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This gene encodes a member of the WD repeat protein family. WD repeats are minimally conserved regions of approximately 40 amino acids typically bracketed by gly-his and trp-asp (GH-WD), which may facilitate formation of heterotrimeric or multiprotein complexes. Members of this family are involved in a variety of cellular processes, including cell cycle progression, signal transduction, apoptosis, and gene regulation. This gene is excluded as a candidate for a form of nonsyndromic deafness (DFNB10), but is still a candidate for other disorders mapped to 21q22.3 as well as for the development of Down syndrome phenotypes. Two transcript variants encoding the same protein have been found for this gene.

WDR4 Antibody (Center) - References

Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)
Olsen, J.V., et al. Cell 127(3):635-648(2006)
Hu, Y.H., et al. BMC Genomics 7, 155 (2006) :
Cartlidge, R.A., et al. EMBO J. 24(9):1696-1705(2005)
Alexandrov, A., et al. RNA 8(10):1253-1266(2002)