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Recombinant Anti-WDR4 Rabbit mAb

Catalog # AP95132

Product Information

Application	WB, IHC, FC, IF/IC
Primary Accession	P57081
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Calculated MW	45490

Additional Information

Gene ID	10785
Other Names	tRNA (guanine-N(7)-)-methyltransferase non-catalytic subunit WDR4; WD repeat-containing protein 4
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within human WDR4 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~1:10~50 IF/IC~~N/A
Format	Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

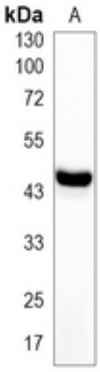
Protein Information

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

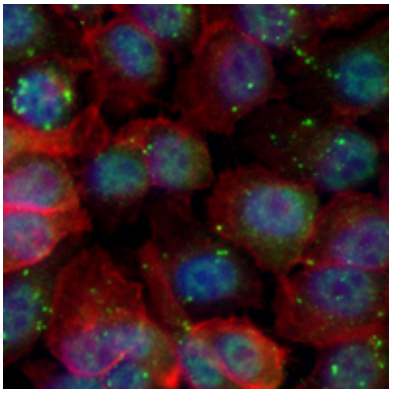
of METTL1, also plays a role in genome stability: localizes at the DNA replication site and regulates endonucleolytic activities of FEN1 (PubMed:26751069).

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

Images



Western blot analysis of WDR4 expression in HepG2 (A) whole cell lysates. (Predicted band size: 45 kD; Observed band size: 45 kD)



Immunofluorescent analysis of WDR4 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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