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PHF2 Rabbit pAb

Catalog # AP98636

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	O75151
Other Accession	O75151
Reactivity	Rat, Human, Mouse
Predicted	Pig, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	120775
Physical State	Liquid
Immunogen	Recombinant human PHF2 protein
Epitope Specificity	551-762/1096
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the JHDM1 histone demethylase family. JHDM1D subfamily. Contains 1 JmjC domain. Contains 1 PHD-type zinc finger.
SUBUNIT	Component of the PHF2-ARID5B complex, at least composedof PHF2 and ARID5B. Interacts with HNF4A and NR1H4.
Post-translational modifications	Phosphorylated by PKA on specific serine residues, leading to the formation of an active lysine demethylase complex.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a protein which contains a zinc finger-like PHD (plant homeodomain) finger, distinct from other classes of zinc finger motifs, and a hydrophobic and highly conserved domain. The PHD finger shows the typical Cys4-His-Cys3 arrangement. PHD finger genes are thought to belong to a diverse group of transcriptional regulators possibly affecting eukaryotic gene expression by influencing chromatin structure. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	5253
Other Names	CENP-35; GRC5; JHDM1E; KDM7C; PHF2_HUMAN; PHF2; PHD finger protein 2; 1.14.11.-; KIAA0662; PHF2_MOUSE; lysine demethylase 7C; jumonji C domain-containing histone demethylase 1E; centromere protein 35
Dilution	IHC-P=1:100-500,WB=1:500-2000,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	PHF2 (HGNC:8920)
Function	Lysine demethylase that demethylates both histones and non- histone proteins (PubMed:20129925, PubMed:21167174, PubMed:21532585). Enzymatically inactive by itself, and becomes active following phosphorylation by PKA: forms a complex with ARID5B and mediates demethylation of methylated ARID5B (PubMed:21532585). Demethylation of ARID5B leads to target the PHF2-ARID5B complex to target promoters, where PHF2 mediates demethylation of dimethylated 'Lys-9' of histone H3 (H3K9me2), followed by transcription activation of target genes (PubMed:21532585). The PHF2-ARID5B complex acts as a coactivator of HNF4A in liver. PHF2 is recruited to trimethylated 'Lys-4' of histone H3 (H3K4me3) at rDNA promoters and promotes expression of rDNA (PubMed:21532585). Involved in the activation of toll-like receptor 4 (TLR4)-target inflammatory genes in macrophages by catalyzing the demethylation of trimethylated histone H4 lysine 20 (H4K20me3) at the gene promoters (By similarity).
Cellular Location	Nucleus, nucleolus. Chromosome, centromere, kinetochore
Tissue Location	Widely expressed, including in liver (at protein level).

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