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Anti-PHF1 Antibody

Catalog # AP53360

Product Information

Application	WB, IHC
Primary Accession	O43189
Reactivity	Human, Rabbit, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62106

Additional Information

Gene ID	5252
Other Names	PCL1; PHD finger protein 1; Protein PHF1; hPHF1; Polycomb-like protein 1; hPCl1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human PHF1. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

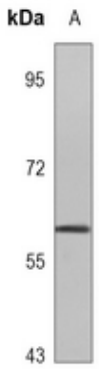
Name	PHF1
Synonyms	PCL1
Function	Polycomb group (PcG) that specifically binds histone H3 trimethylated at 'Lys-36' (H3K36me3) and recruits the PRC2 complex. Involved in DNA damage response and is recruited at double-strand breaks (DSBs). Acts by binding to H3K36me3, a mark for transcriptional activation, and recruiting the PRC2 complex: it is however unclear whether recruitment of the PRC2 complex to H3K36me3 leads to enhance or inhibit H3K27me3 methylation mediated by the PRC2 complex. According to some reports, PRC2 recruitment by PHF1 promotes H3K27me3 and subsequent gene silencing by inducing spreading of PRC2 and H3K27me3 into H3K36me3 loci (PubMed:18285464, PubMed:23273982). According to another report, PHF1 recruits the PRC2 complex at double-strand breaks (DSBs) and inhibits the activity of PRC2 (PubMed:23142980). Regulates p53/TP53 stability and prolonges its turnover: may act by specifically binding to a methylated from of p53/TP53.

Cellular Location	Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Localizes specifically to the promoters of numerous target genes. Localizes to double-strand breaks (DSBs) sites following DNA damage. Co-localizes with NEK6 in the centrosome
Tissue Location	Highest levels in heart, skeletal muscle, and pancreas, lower levels in brain, placenta, lung, liver and kidney

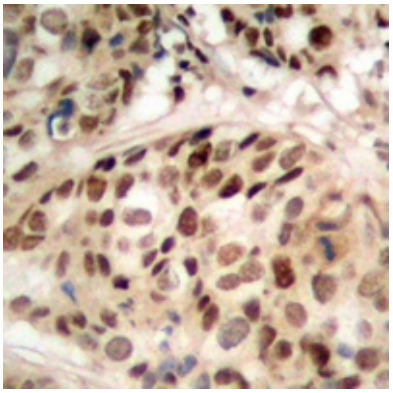
References

Coulson M.,et al.Genomics 48:381-383(1998).
Wang J.H.,et al.Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.
Mungall A.J.,et al.Nature 425:805-811(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Micci F.,et al.Cancer Res. 66:107-112(2006).

Images



Western blot analysis of PHF1 expression in HeLa (A) whole cell lysates. (Predicted band size: 62 kD; Observed band size: 62 kD)



Immunohistochemical analysis of PHF1 staining in human prostate cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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