

**PHF1 Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP53360**

**Specification**

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**PHF1 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O43189</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>62 KDa</b>
Antigen Region	<b>359-408</b>

**PHF1 Antibody - Additional Information**

**Gene ID** 5252

**Dilution**

WB~~ 1:1000

**Format**

Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**PHF1 Antibody - 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](http://www.uniprot.org/citations/18285464)), PubMed: [23273982](http://www.uniprot.org/citations/23273982)). According to another report, PHF1 recruits the PRC2 complex at double-strand breaks (DSBs) and inhibits the activity of PRC2 (PubMed: [23142980](http://www.uniprot.org/citations/23142980)). Regulates p53/TP53 stability and prolongs its turnover: may act by specifically binding to a methylated form 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

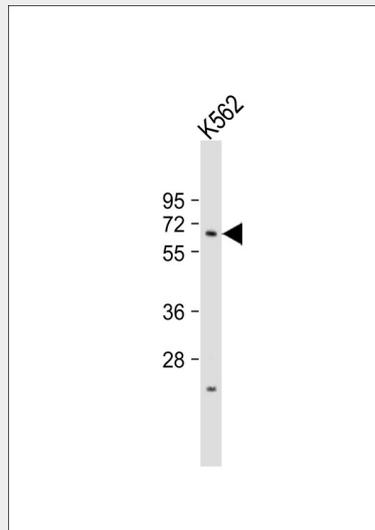
Highest levels in heart, skeletal muscle, and pancreas, lower levels in brain, placenta, lung, liver and kidney

### PHF1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### PHF1 Antibody - Images



Anti-PHF1 Antibody at 1:1000 dilution + K562 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 62 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

### PHF1 Antibody - Background

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 and

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 prolongs its turnover: may act by specifically binding to a methylated form of p53/TP53.

#### **PHF1 Antibody - 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).