

**PC2 (CBX4) Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2514a**

**Specification**

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**PC2 (CBX4) Antibody (N-term) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">O00257</a>
Reactivity	<b>Human, Mouse</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Antigen Region	<b>80-110</b>

**PC2 (CBX4) Antibody (N-term) - Additional Information**

**Gene ID** 8535

**Other Names**

E3 SUMO-protein ligase CBX4, 632-, Chromobox protein homolog 4, Polycomb 2 homolog, Pc2, hPc2, CBX4

**Target/Specificity**

This PC2 (CBX4) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 80-110 amino acids from the N-terminal region of human PC2 (CBX4).

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100

**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**

PC2 (CBX4) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**PC2 (CBX4) Antibody (N-term) - Protein Information**

**Name** CBX4

**Function** E3 SUMO-protein ligase which facilitates SUMO1 conjugation by UBE2I (PubMed:[12679040](#)). Involved in the sumoylation of HNRNPK, a p53/TP53 transcriptional

coactivator, hence indirectly regulates p53/TP53 transcriptional activation resulting in p21/CDKN1A expression. Monosumoylates ZNF131 (PubMed:[22825850](#)).

#### Cellular Location

Nucleus. Nucleus speckle. Note=Localization to nuclear polycomb bodies is required for ZNF131 sumoylation (PubMed:22467880). Localized in distinct foci on chromatin (PubMed:18927235)

#### Tissue Location

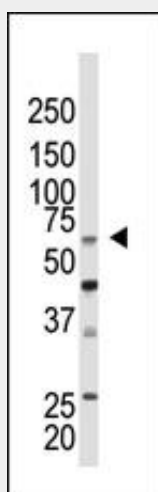
Ubiquitous.

### PC2 (CBX4) Antibody (N-term) - Protocols

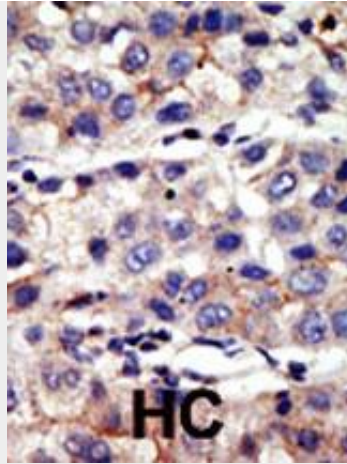
Provided below are standard protocols that you may find useful for product applications.

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

### PC2 (CBX4) Antibody (N-term) - Images



The anti-CBX4 N-term Pab (Cat. #AP2514a) is used in Western blot to detect CBX4 in mouse kidney tissue lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **PC2 (CBX4) Antibody (N-term) - Background**

CBX4 is a member of Drosophila Polycomb group gene family. The polycomb group (PcG) genes are essential for maintenance of proper expression patterns of developmental master regulators; changes in expression of PcG proteins have been associated with cancer. CBX4 is a part of the cellular memory system responsible for the inheritance of gene activity by progeny cells. It participates in maintaining the transcriptionally repressive state of genes. CBX4 is part of a complex that acts via chromatin remodeling and modification of histones; it mediates monoubiquitination of histone H2A 'Lys-119', rendering chromatin heritably changed in its expressibility. CBX4 is an E3 SUMO-protein ligase which facilitates SUMO1 conjugation by UBE2I.

#### **PC2 (CBX4) Antibody (N-term) - References**

Kagey, M.H., et al., Cell 113(1):127-137 (2003).  
Satijn, D.P., et al., Mol. Cell. Biol. 17(10):6076-6086 (1997).

#### **PC2 (CBX4) Antibody (N-term) - Citations**

- [HSP70-Hrd1 axis precludes the oncorepressor potential of N-terminal misfolded Blimp-1s in lymphoma cells.](#)
- [Human Polycomb protein 2 promotes  \$\hat{\pm}\$ -synuclein aggregate formation through covalent SUMOylation.](#)
- [The SUMO E3 ligase activity of Pc2 is coordinated through a SUMO interaction motif.](#)