

**PHC3 Antibody**  
Catalog # ASC11737**Specification**

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**PHC3 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q8NDX5</a>
Other Accession	<a href="#">NP_079223</a> , <a href="#">148612879</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 109 kDa
Application Notes	Observed: 120 kDa KDa PHC3 antibody can be used for detection of PHC3 by Western blot at 1 - 2 µg/ml.

**PHC3 Antibody - Additional Information**

Gene ID	80012
<b>Target/Specificity</b>	
PHC3; PHC3 antibody is human, mouse and rat specific. At least six isoforms of PHC3 are known to exist.	

**Reconstitution & Storage**

PHC3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

PHC3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**PHC3 Antibody - Protein Information**

**Name** PHC3

**Synonyms** EDR3, PH3

**Function**

Component of a Polycomb group (PcG) multiprotein PRC1-like complex, a complex class required to maintain the transcriptionally repressive state of many genes, including Hox genes, throughout development. PcG PRC1 complex acts via chromatin remodeling and modification of histones; it mediates monoubiquitination of histone H2A 'Lys-119', rendering chromatin heritably changed in its expressibility.

**Cellular Location**

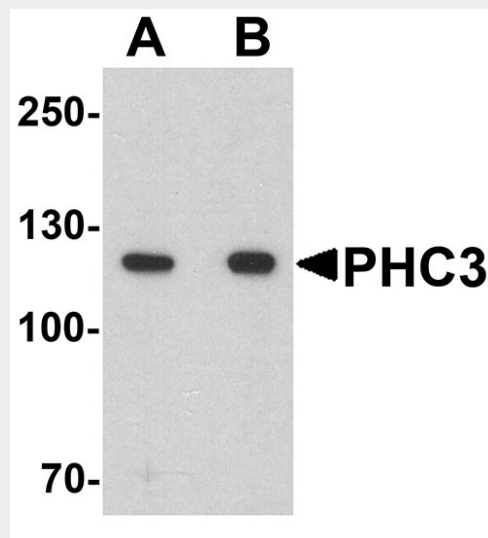
Nucleus

## PHC3 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](#)

## PHC3 Antibody - Images



Western blot analysis of PHC3 in 3T3 cell lysate with PHC3 antibody at (A) 1 and (B) 2 µg/ml.

## PHC3 Antibody - Background

Polycomb group (PcG) proteins assemble into multimeric protein complexes, which are involved in maintaining the transcriptional repressive state of genes throughout development (1). PHC3 (Polyhomeotic-like protein 3), also known as Early development regulatory protein 3, is a 983 amino acid nuclear protein that is a component of the PcG multiprotein PRC1 complex (2). PRC1 complex acts via chromatin remodeling and modification of histones. PHC3 contains 1 FCS-type zinc finger and SAM (sterile alpha motif) domain (2-3). PHC 3 has been regarded as a candidate tumor suppressor of osteosarcoma (4).

## PHC3 Antibody - References

Valk-Lingbeek ME, Bruggeman SW, and Van Lohuizen M. Stem cells and cancer; the polycomb connection. *Cell* 2004; 118:409-18.  
Deshpande AM, Akunowicz JD, Reveles XT, et al. PHC3, a component of the hPRC-H complex, associates with E2F6 during G0 and is lost in osteosarcoma tumors. *Oncogene* 2007; 26:1714-22.  
Isono K, Fujimura Y, Shinga J, et al. Mammalian polyhomeotic homologues Phc2 and Phc1 act in synergy to mediate polycomb repression of Hox genes. *Mol. Cell Biol.* 2005; 25:6694-706.  
Iwata S, Takenobu H, Kageyama H, et al. Polycomb group molecule PHC3 regulates polycomb complex composition and prognosis of osteosarcoma. *Cancer Sci.* 2010; 101:1646-52.