

**Anti-Bmi1 Antibody**  
Catalog # ABO11115**Specification**

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**Anti-Bmi1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P35226</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Polycomb complex protein BMI-1(BMI1) detection. Tested with WB in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Bmi1 Antibody - Additional Information**

**Gene ID** 100532731;648

**Other Names**

Polycomb complex protein BMI-1, Polycomb group RING finger protein 4, RING finger protein 51, BMI1, PCGF4, RNF51

**Calculated MW**

36949 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Nucleus. Cytoplasm.

**Protein Name**

Polycomb complex protein BMI-1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence in the middle region of human Bmi1(136-152aa EFFDQNRLDRKVNKDKE), different from the related mouse sequence by three amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

Storage

**At -20°C for one year. After r<sup>o</sup>Constitution, at 4°C for one month. It<sup>o</sup>Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

#### Sequence Similarities

Contains 1 RING-type zinc finger.

### Anti-Bmi1 Antibody - Protein Information

Name BMI1

Synonyms PCGF4, RNF51

#### 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 (PubMed:<a href="http://www.uniprot.org/citations/15386022" target="\_blank">15386022</a>, PubMed:<a href="http://www.uniprot.org/citations/16359901" target="\_blank">16359901</a>, PubMed:<a href="http://www.uniprot.org/citations/16714294" target="\_blank">16714294</a>, PubMed:<a href="http://www.uniprot.org/citations/21772249" target="\_blank">21772249</a>, PubMed:<a href="http://www.uniprot.org/citations/25355358" target="\_blank">25355358</a>, PubMed:<a href="http://www.uniprot.org/citations/26151332" target="\_blank">26151332</a>, PubMed:<a href="http://www.uniprot.org/citations/27827373" target="\_blank">27827373</a>). The complex composed of RNF2, UB2D3 and BMI1 binds nucleosomes, and has activity only with nucleosomal histone H2A (PubMed:<a href="http://www.uniprot.org/citations/21772249" target="\_blank">21772249</a>, PubMed:<a href="http://www.uniprot.org/citations/25355358" target="\_blank">25355358</a>). In the PRC1-like complex, regulates the E3 ubiquitin-protein ligase activity of RNF2/RING2 (PubMed:<a href="http://www.uniprot.org/citations/15386022" target="\_blank">15386022</a>, PubMed:<a href="http://www.uniprot.org/citations/21772249" target="\_blank">21772249</a>, PubMed:<a href="http://www.uniprot.org/citations/26151332" target="\_blank">26151332</a>).

#### Cellular Location

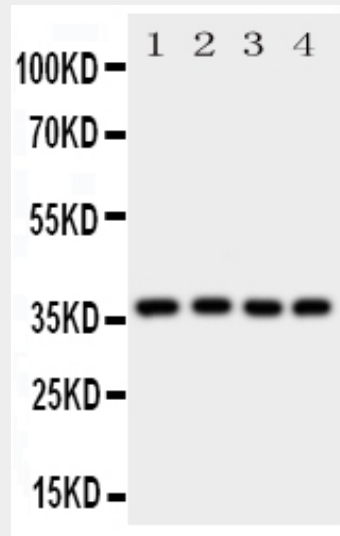
Nucleus. Cytoplasm

### Anti-Bmi1 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](#)

### Anti-Bmi1 Antibody - Images



Anti-Bmi1 antibody, ABO11115, Western blotting  
 All lanes: Anti Bmi1 (ABO11115) at 0.5ug/ml  
 Lane 1: HELA Whole Cell Lysate at 40ug  
 Lane 2: HT1080 Whole Cell Lysate at 40ug  
 Lane 3: COLO320 Whole Cell Lysate at 40ug  
 Lane 4: MCF-7 Whole Cell Lysate at 40ug  
 Predicted bind size: 37KD  
 Observed bind size: 37KD

### Anti-Bmi1 Antibody - Background

BMI1 (BMI1 polycomb ring finger oncogene), also known as RNF51, is a protein which in humans is encoded by the BMI1 gene. The Bmi1 gene is highly conserved in evolution as indicated by zoo blot hybridization with Bmi1 probes corresponding to the protein-encoding domain. By fluorescence in situ hybridization, the human BMI1 gene is assigned to chromosome 10p13. BMI1 has a key role in regulating the proliferative activity of normal stem and progenitor cells. Most importantly, they provided evidence that the proliferative potential of leukemic stem and progenitor cells lacking BMI1 is compromised because they eventually undergo proliferation arrest and show signs of differentiation and apoptosis, leading to transplant failure of the leukemia. Complementation studies showed that BMI1 completely rescues these proliferative defects. Deletion analysis showed that the RING finger and helix-turn-helix domains of BMI1 were required for life span extension and repression of the tumor suppressor p16 (INK4). BMI1 selectively extended the life span of these cultures. Confocal microscopy showed that BMI1 transiently colocalized with centromeres during interphase in HeLa cells.