

**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°Constitution, at 4°C for one month. It°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

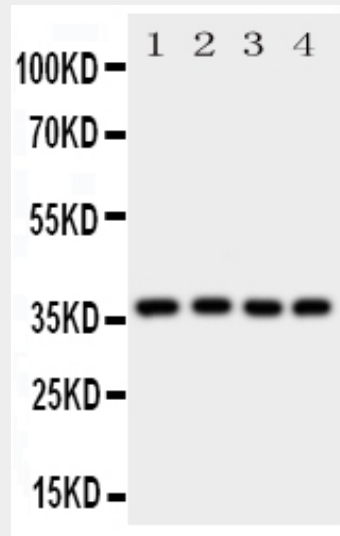
Nucleus. Cytoplasm

### 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: 37KDa  
Observed bind size: 37KDa

#### 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.