

## BMI1 Antibody

Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP8756a

### Specification

#### BMI1 Antibody - Product Information

Application	IF, WB, IHC-P, FC,E
Primary Accession	<a href="#">P35226</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig

#### 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

#### Target/Specificity

This BMI1 antibody is generated from rabbits immunized with BMI1 recombinant protein.

#### Dilution

IF~~1:25  
WB~~1:8000  
IHC-P~~1:10~50  
FC~~1:25

#### 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

BMI1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

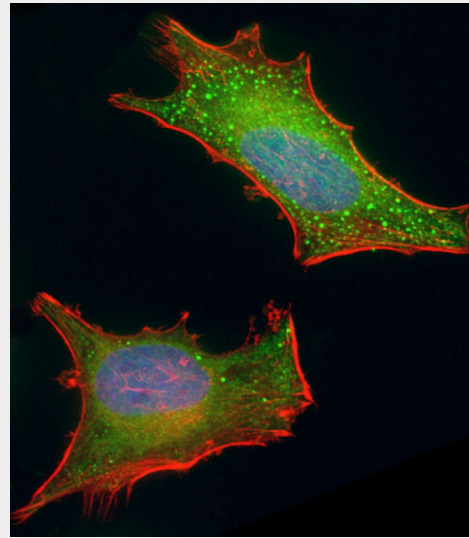
#### BMI1 Antibody - Protein Information

Name BMI1

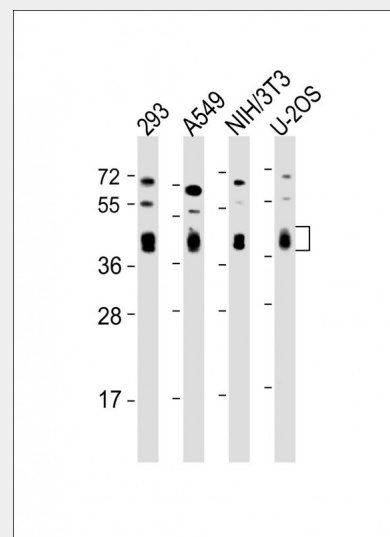
Synonyms PCGF4, RNF51

#### Function

Component of a Polycomb group (PcG)



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling BMI1 with AP8756a at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (1583138) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm and nucleus staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (OI17558410) at 1/100 dilution (red). The nuclear counter stain is DAPI (blue).



All lanes : Anti-BMI1 Antibody at 1:2000 dilution Lane 1: 293 whole cell lysate Lane 2:

multi-protein 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: [15386022](http://www.uniprot.org/citations/15386022) target="\_blank">15386022</a>, PubMed: [16359901](http://www.uniprot.org/citations/16359901) target="\_blank">16359901</a>, PubMed: [26151332](http://www.uniprot.org/citations/26151332) target="\_blank">26151332</a>, PubMed: [16714294](http://www.uniprot.org/citations/16714294) target="\_blank">16714294</a>, PubMed: [21772249](http://www.uniprot.org/citations/21772249) target="\_blank">21772249</a>, PubMed: [25355358](http://www.uniprot.org/citations/25355358) target="\_blank">25355358</a>, PubMed: [27827373](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: [21772249](http://www.uniprot.org/citations/21772249) target="\_blank">21772249</a>, PubMed: [25355358](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: [15386022](http://www.uniprot.org/citations/15386022) target="\_blank">15386022</a>, PubMed: [26151332](http://www.uniprot.org/citations/26151332) target="\_blank">26151332</a>, PubMed: [21772249](http://www.uniprot.org/citations/21772249) target="\_blank">21772249</a>).

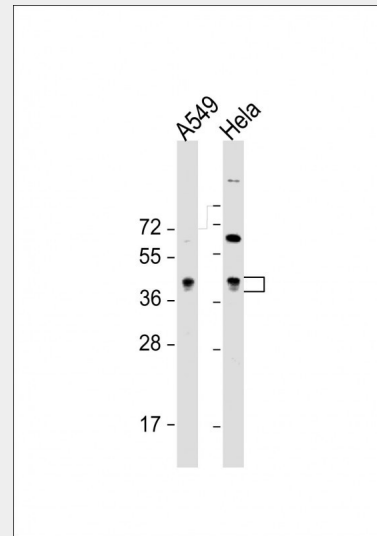
**Cellular Location**  
Nucleus. Cytoplasm

### BMI1 Antibody - Protocols

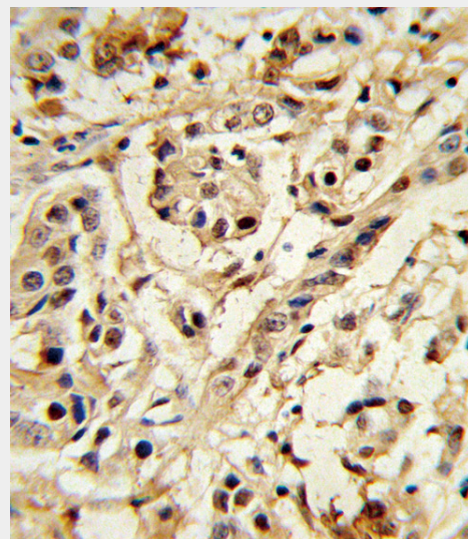
Provided below are standard protocols that you may find useful for product applications.

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

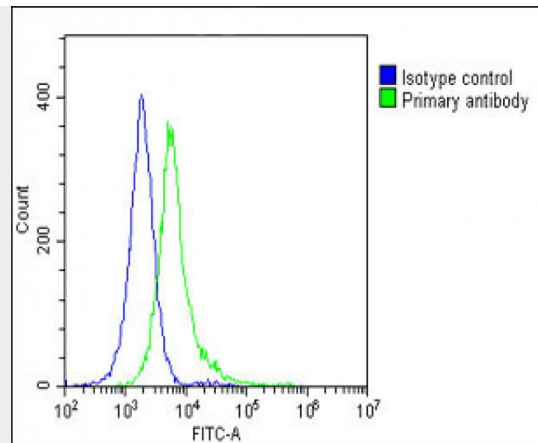
A549 whole cell lysate Lane 3: NIH/3T3 whole cell lysate Lane 4: U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFD/MTBST.



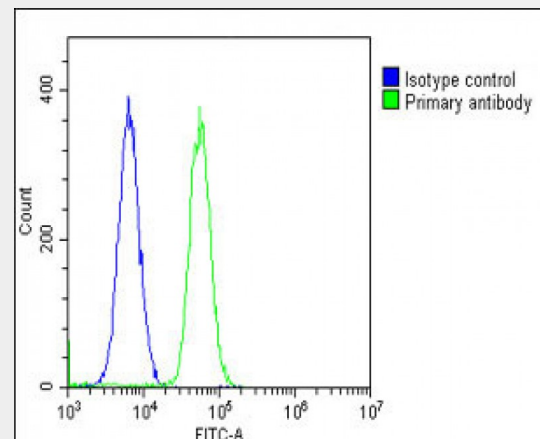
All lanes : Anti-BMI1 Antibody at 1:8000 dilution Lane 1: A549 whole cell lysate Lane 2: HeLa whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFD/MTBST.



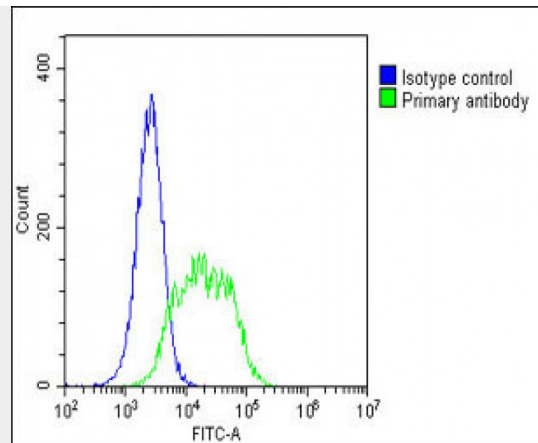
Formalin-fixed and paraffin-embedded human breast carcinoma reacted with BMI1 Antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Overlay histogram showing HeLa cells stained with AP8756a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP8756a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed (OH191631) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1 µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10,000 events was performed.



Overlay histogram showing U-2 OS cells stained with AP8756a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP8756a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed (OH191631) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1 µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10,000 events was performed.



Overlay histogram showing A549 cells stained with AP8756a (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP8756a, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed (OH191631) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1 µg/1 × 10<sup>6</sup> cells) used under the same conditions. Acquisition of >10,000 events was performed.

### BMI1 Antibody - Background

Component of the Polycomb group (PcG) multiprotein PRC1 complex, a complex 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. In the PRC1 complex, it is required to stimulate the E3 ubiquitin-protein ligase activity of RNF2/RING2.

### BMI1 Antibody - References

Chagraoui J., et.al., Genes Dev. 20:2110-2120(2006).

### BMI1 Antibody - Citations

- [Role of epigenetic regulation on the induction of apoptosis in Jurkat leukemia cells by white grape pomace rich in phenolic compounds.](#)
- [Characterisation of Cultured Mesothelial Cells Derived from the Murine Adult Omentum.](#)
- [Overexpression of Bmi1 in Lymphocytes Stimulates Skeletogenesis by Improving the Osteogenic Microenvironment.](#)