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BMI-1 Antibody

Catalog # ASC10401

Product Information

Application	WB, IF, ICC, E
Primary Accession	P35226
Other Accession	P35226, 22258801
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	36949
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	BMI-1 antibody can be used for detection of BMI-1 by Western blot at 0.5 to 2 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	100532731;648
Other Names	BMI-1 Antibody: PCGF4, RNF51, FLVI2/BMI1, PCGF4, Polycomb complex protein BMI-1, Polycomb group RING finger protein 4, BMI1 polycomb ring finger oncogene
Target/Specificity	BMI1;
Reconstitution & Storage	BMI-1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	BMI-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:15386022, PubMed:16359901,

PubMed:16714294, PubMed:21772249, PubMed:25355358, PubMed:26151332, PubMed:27827373). The complex composed of RNF2, UB2D3 and BMI1 binds nucleosomes, and has activity only with nucleosomal histone H2A (PubMed:21772249, PubMed:25355358). In the PRC1-like complex, regulates the E3 ubiquitin-protein ligase activity of RNF2/RING2 (PubMed:15386022, PubMed:21772249, PubMed:26151332).

Cellular Location Nucleus. Cytoplasm

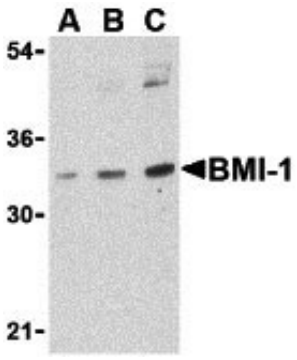
Background

BMI-1 Antibody: The transcriptional repressor BMI-1 was first identified as a proto-oncogene frequently activated by Moloney murine leukemia proviral insertions in mice and cooperating with c-myc in the generation of mouse lymphomas. BMI-1 is involved in segment specification, cell growth and maintenance, transcriptional regulation, and chromatin modification. A major target of BMI-1 is the ink4a locus which encodes tumor suppressor proteins p16 and p19Arf, which are important in tumor progression and thought to be critical in cell proliferation and senescence. Recent studies have also shown that BMI-1 is required for the maintenance of adult normal and leukemic stem cells, suggesting that BMI-1 could an attractive therapeutic target for stem cell proliferation and renewal as well as for anti-cancer strategies.

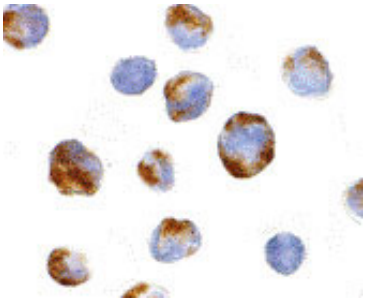
References

Alkema MJ, Wiegant J, Raap AK, et al. Characterization and chromosomal localization of the human proto-oncogene BMI-1. Hum. Mol. Genet. 1993; 2:1597-603.
Jacobs JJ, Kieboom K, Marino S, et al. The oncogene and polycomb-group gene bmi-1 regulates cell proliferation and senescence through the ink4a locus. Nature 1999; 397:164-8.
Lessard J and Sauvageau G. BMI-1 determines the proliferative capacity of normal and leukaemic stem cells. Nature 2003; 255-60.

Images

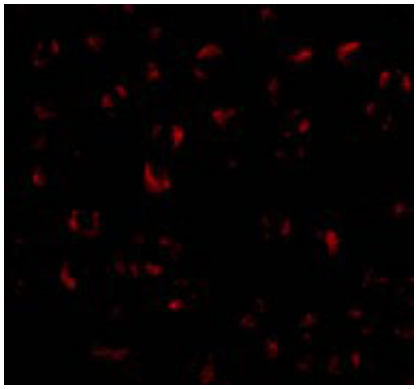


Western blot analysis of BMI-1 in K562 cell lysate with BMI-1 antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.



Immunocytochemistry of BMI-1 in K562 cells with BMI-1 antibody at 10 µg/mL.

Immunofluorescence of BMI-1 in K562 cells with BMI-1 antibody at 20 µg/mL.



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