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BMI1 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2513B

Product Information

Application	WB, IHC-P, E
Primary Accession	P35226
Other Accession	P25916, Q5SDR3, Q32KX7
Reactivity	Human
Predicted	Bovine, Chicken, Mouse, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	36949
Antigen Region	257-286

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 a KLH conjugated synthetic peptide between 257-286 amino acids from the C-terminal region of human BMI1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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 (C-term) 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

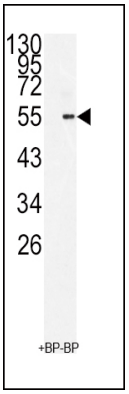
Background

BMI is a 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 ligase activity of RNF2/RING2. BMI cooperates with the MYC oncogene to produce B-lymphomas.

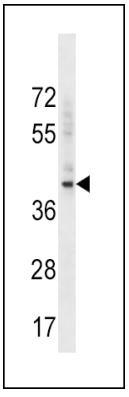
References

Smith, K.S., et al., Mol. Cell 12(2):393-400 (2003). Xia, Z.B., et al., Proc. Natl. Acad. Sci. U.S.A. 100(14):8342-8347 (2003). Itahana, K., et al., Mol. Cell. Biol. 23(1):389-401 (2003). Dimri, G.P., et al., Cancer Res. 62(16):4736-4745 (2002). Bardos, J.I., et al., J. Biol. Chem. 275(37):28785-28792 (2000).

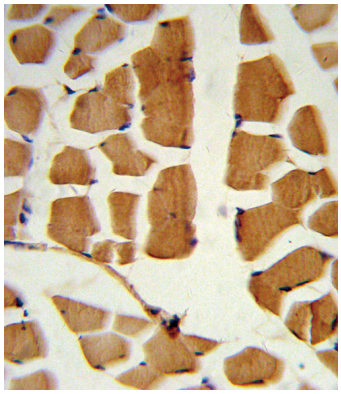
Images



Western blot analysis of BMI1 Antibody (C-term) antibody(Cat. #AP2513b) in 293 cell line lysates (35ug/lane). BMI1(arrow) was detected using the purified Pab.



BMI1 Antibody (C-term) (Cat. #AP2513b) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the BMI1 antibody detected the BMI1 protein (arrow).



Formalin-fixed and paraffin-embedded human skeletal muscle reacted with BMI1 Antibody (C-term), 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.

Citations

- Sonic hedgehog regulates Bmi1 in human medulloblastoma brain tumor-initiating cells.
- Severe polyposis in Apc(1322T) mice is associated with submaximal Wnt signalling and increased expression of the stem cell marker Lgr5.
- Bmi1 lineage tracing identifies a self-renewing pancreatic acinar cell subpopulation capable of maintaining pancreatic organ homeostasis.

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