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BMI1 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1930b

Product Information

Application	WB, IF, E
Primary Accession	P35226
Other Accession	NP_005171.4
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,k
Clone Names	282CT3.7.6
Calculated MW	36949

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 monoclonal antibody is generated from mouse immunized with BMI1 recombinant protein.
Dilution	WB~~1:500~1000 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, 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 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

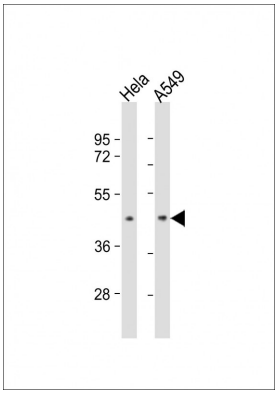
Background

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.

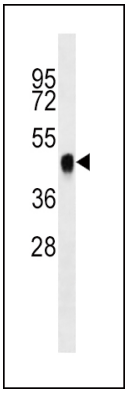
References

Ismail, I.H., et al. J. Cell Biol. 191(1):45-60(2010)
Yang, M.H., et al. Nat. Cell Biol. 12(10):982-992(2010)
Kikuchi, J., et al. Cancer 116(12):3015-3024(2010)
Honig, A., et al. Anticancer Res. 30(5):1559-1564(2010)
Venkataraman, S., et al. PLoS ONE 5 (6), E10748 (2010) :

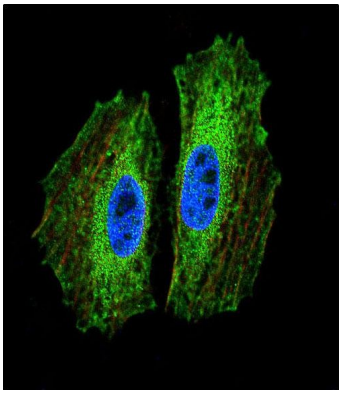
Images



All lanes : Anti-BMI1 Antibody at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



BMI1 Antibody (Cat. #AM1930b) western blot analysis in K562 cell line lysates (35µg/lane).This demonstrates the BMI1 antibody detected the BMI1 protein (arrow).



Confocal immunofluorescent analysis of BMI1 Antibody (Cat#AM1930b) with NCI-H460 cell followed by Alexa Fluor® 488-conjugated goat anti-mouse lgG (green).Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). DAPI was used to stain the cell nuclear (blue).

Citations

- Bmi-1-RING1B prevents GATA4-dependent senescence-associated pathological cardiac hypertrophy by promoting autophagic degradation of GATA4

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