BMI Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	BMI, Polyclonal Antibody
Full Product Name	BMI, ID (Polycomb complex protein BMI-1, Polycomb group RING finger protein 4, RING finger protein 51, BMI1, PCGF4, RNF51) (Azide free) (HRP)
Product Gene Name	anti-BMI antibody
Product Synonym Gene Name	BMI1
Product Synonym Names	Polycomb complex protein BMI-1; Polycomb group RING finger protein 4; RING finger protein 51; BMI1; PCGF4; RNF51
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Horseradish Peroxidase (HRP).
Purity/Purification	Purified by Protein G Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Note: Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	36,949 Da
OMIM	164831
3D Structure	ModBase 3D Structure for P35226
Immunogen	BMI antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 128~158 amino acids from the central region of human BMI.
Conjugate	HRP
Note	Preservative Free
Product Categories/Family for anti-BMI antibody	Antibodies; Transcription Factors; Zinc (Ring) Finger
Applications Tested/Suitable for anti-BMI antibody	Immunohistochemistry (IHC), ELISA (EIA)
Application Notes for anti-BMI antibody	IHC: 1:50-100 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-BMI antibody	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.

Product References and Citations for anti-BMI antibody	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).
Other Notes	Small volumes of anti-BMI antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BMI purchase	MBS6278564 is an antibody targeting BMI. Also known as BMI, ID (Polycomb complex protein BMI-1, Polycomb group RING finger protein 4, RING finger protein 51, BMI1, PCGF4, RNF51) (Azide free) (HRP). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BMI. It may not necessarily be applicable to this product.

NCBI GI #	27883842
NCBI GeneID	648
NCBI Accession #	NP_005171.4
UniProt Primary Accession #	P35226
UniProt Secondary Accession #	Q16030; Q5T8Z3; Q96F37
UniProt Related Accession #	P35226
GenBank Nucleotide #	NM_005180.8
NCBI Official Full Name	polycomb complex protein BMI-1
NCBI Official Synonym Full Names	BMI1 proto-oncogene, polycomb ring finger
NCBI Official Symbol	BMI1
NCBI Official Synonym Symbols	PCGF4; RNF51; FLVI2/BMI1
UniProt Protein Name	Polycomb complex protein BMI-1
UniProt Synonym Protein Names	Polycomb group RING finger protein 4; RING finger protein 51
Protein Family	Polycomb complex protein
UniProt Gene Name	BMI1
UniProt Synonym Gene Names	PCGF4; RNF51
UniProt Entry Name	BMI1_HUMAN
NCBI Protein Information	polycomb complex protein BMI-1; flvi-2/bmi-1; ring finger protein 51; polycomb group protein Bmi1; BMI1 polycomb ring finger oncogene; polycomb group RING finger protein 4; BMI1 polycomb ring finger proto-oncogene; B lymphoma Mo-MLV insertion region 1 hom
NCBI Summary for BMI	This gene encodes a ring finger protein that is major component of the polycomb group complex 1 (PRC1). This complex functions through chromatin remodeling as an essential epigenetic repressor of multiple regulatory genes involved in embryonic development and self-renewal in somatic stem cells. This protein also plays a central role in DNA damage repair. This gene is an oncogene and aberrant expression is associated with numerous cancers and is associated with resistance to certain chemotherapies. A pseudogene of this gene is found on chromosome X. Read-through transcription also exists between this gene and the upstream COMM domain containing 3 (COMMD3) gene. [provided by RefSeq, Sep 2015]

UniProt Comments for BMI	BMI1: 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. In the PRC1 complex, it is required to stimulate the E3 ubiquitin-protein ligase activity of RNF2/RING2. Component of a PRC1-like complex. Interacts with RING1 and RING2. Interacts vwith CBX7 and CBX8. Interacts with SPOP. Part of a complex consisting of BMI1, CUL3 and SPOP. Interacts with E4F1. Protein type: Motility/polarity/chemotaxis; Oncoprotein; Ligase; EC 6.3.2.-; Ubiquitin ligase; Ubiquitin conjugating system Chromosomal Location of Human Ortholog: 10p11.23 Cellular Component: nucleoplasm; nuclear body; heterochromatin; cytoplasm; PcG protein complex; nucleus; ubiquitin ligase complex Molecular Function: protein binding; zinc ion binding; sequence-specific DNA binding; ubiquitin-protein ligase activity; chromatin binding Biological Process: transcription, DNA-dependent; in utero embryonic development; positive regulation of immature T cell proliferation in the thymus; negative regulation of transcription from RNA polymerase II promoter; humoral immune response; embryonic skeletal morphogenesis; segment specification; rostrocaudal neural tube patterning; positive regulation of fibroblast proliferation; regulation of gene expression; positive regulation of ubiquitin-protein ligase activity; histone ubiquitination; DNA methylation; positive regulation of B cell proliferation; somatic stem cell division; hemopoiesis; brain development; histone acetylation
Research Articles on BMI	**1.** findings suggest that TAMs may cause increased Bmi1 expression through miR-30e* suppression, leading to tumor progression
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