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Datasheet for 600-101-392

BMI1 Antibody

Overview

Description:	Anti-BMI1 (GOAT) Antibody - 600-101-392
Item No.:	600-101-392
Size:	100 µg
Applications:	ELISA, IF, Multiplex, WB
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	The Bmi-1 oncogene (also known as polycomb group ring finger 4, MGC12685, murine leukemia viral (bmi 1) oncogene homolog, oncogene BMI 1, polycomb complex protein BMI 1 and RNF51) induces telomerase activity and immortalizes human mammary epithelial cells. Bmi-1 extends the replicative life span of human fibroblasts by suppressing the p16-dependent senescence pathway. The polycomb group (PcG) genes are involved in the maintenance of cellular memory through epigenetic chromatin modifications. Recent studies have implicated a role for PcG genes in the self-renewal of hematopoietic stem cells (HSCs), a process in which cellular memory is maintained through cell division. Among the PcG genes, Bmi-1 plays a central role in the inheritance of stemness, and its forced expression promotes HSC self-renewal. These findings highlight the importance of epigenetic regulation in HSC self-renewal and identify PcG genes as potential targets for therapeutic HSC manipulation.
Synonyms:	goat anti-Bmi-1 antibody, Bmi1, B lymphoma Mo MLV insertion region antibody, Bmi 1 antibody, MGC12685 antibody, Murine leukemia viral (bmi 1) oncogene homolog antibody, Oncogene BMI 1 antibody, PCGF 4 antibody
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	BMI1
Reactivity:	Human

Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole goat serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 252-264 of human Bmi1 protein.
Purity/Specificity:	This affinity purified antibody is directed against human Bmi1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with Bmi1 protein from human, rat, orangutan, dog, chimpanzee, bovine and cat based on 100% homology to the immunogen sequence. This sequence shows significant homology to homologues from Xenopus and chicken sources. Reactivity against homologues from other sources is not known.
Relevant Links:	• UniProtKB - P35226 • NCBI - 27883842 • GeneID - 648

Application Details

Tested Applications:	ELISA, IF, Multiplex, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA, immunofluorescence, and western blot. A 1:200 dilution is reported to be effective for Immunofluorescence against Methanol fixed cells. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 37 kDa in size corresponding to Bmi1 by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:30,000
IF:	1:200
WB:	1:500 - 1:3,000

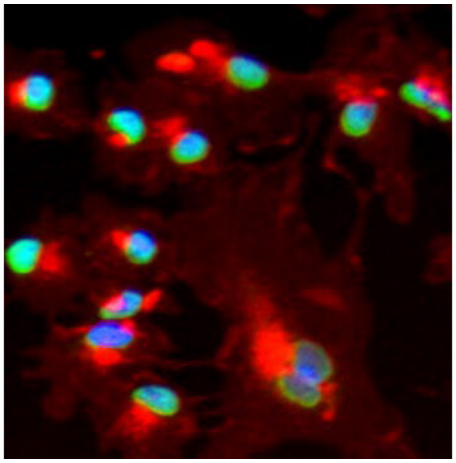
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.91 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

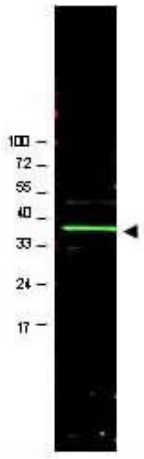
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy
Immunofluorescence using Rockland's affinity purified goat anti Bmi1 shows nuclear staining (green) of methanol fixed (100%, 5 min) HepG2 cells. The cells were blocked and permeabilized in 1%BSA / 10% normal donkey serum / 0.3M glycine in 0.1% PBS-Tween for 1h prior to incubation with the primary antibody (1:200 dilution) overnight at +4°C and detected with a 488nm fluorescent dye conjugated secondary Ab. Cell nuclei are stained with DAPI (blue) and plasma membranes are stained with WGA (red).



Western Blot
Western blot using Rockland's Affinity Purified anti-Bmi1 antibody shows detection of a band ~37 kDa corresponding to human Bmi1 (arrowhead). Approximately 20 µg of a U2OS whole cell lysate (bone osteosarcoma) was separated by 4-20% SDS-PAGE and transferred onto nitrocellulose. After blocking in PBS containing 5% nonfat dry milk, the membrane was probed overnight at 4° C with the primary antibody diluted to 1:1,000 in PBS containing 1% nonfat dry milk. The membrane was washed and reacted with a 1:20,000 dilution of IRDye™800 conjugated Rb-a-Goat IgG [H&L] MX (605-432-013) for 45 min at room temperature. IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

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