

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 • GenelD - 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

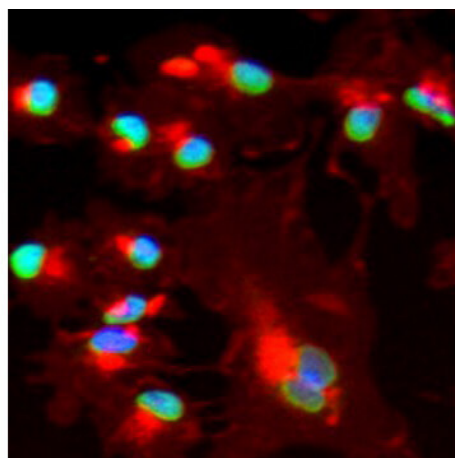
Formulation

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

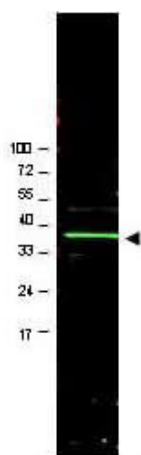
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several 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.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.