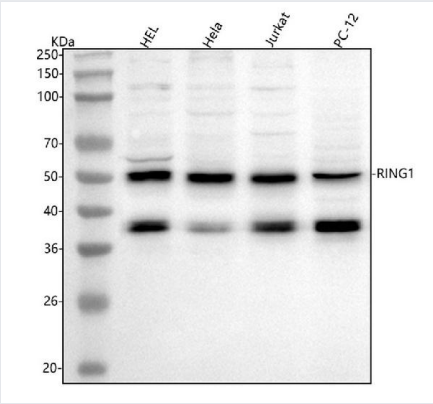
RING1 Antibody – Rabbit Polyclonal

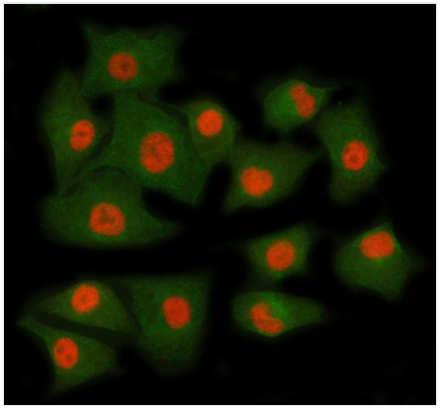
PRODUCT OVERVIEW

Product Name	RING1, Polyclonal Antibody
Full Product Name	Anti-RING1 Antibody Picoband
Product Gene Name	anti-RING1 antibody
Product Synonym Names	Serine/threonine-protein kinase AtPK1/AtPK6; 70 kDa ribosomal protein S6 kinase 1 antibody, KS6B1_HUMAN antibody, p70 alpha antibody, P70 beta 1 antibody, p70 ribosomal S6 kinase alpha antibody, p70 ribosomal S6 kinase beta 1 antibody, p70 S6 kinase alpha antibody, P70 S6 Kinase antibody, p70 S6 kinase alpha 1 antibody, p70 S6 kinase alpha 2 antibody, p70 S6K antibody, p70 S6K-alpha antibody, p70 S6KA antibody, p70(S6K) alpha antibody, p70(S6K)-alpha antibody, p70-alpha antibody, p70-S6K 1 antibody, p70-S6K antibody, P70S6K antibody, P70S6K1 antibody, p70S6Kb antibody, PS6K antibody, Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody, Ribosomal protein S6 kinase beta 1 antibody, Ribosomal protein S6 kinase beta-1 antibody, Ribosomal protein S6 kinase I antibody, RPS6KB1 antibody, S6K antibody, S6K-beta-1 antibody, S6K1 antibody, Serine/threonine kinase 14 alpha antibody, Serine/threonine-protein kinase 14A antibody, STK14A antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Rat
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	Expressed in all tissues.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	406
OMIM	602045
3D Structure	ModBase 3D Structure for Q06587
Immunogen	E coli-derived human RING1 recombinant protein (Position: N6-K387). Human RING1 shares 96.3% and 96.6% amino acid (aa) sequence identity with mouse and rat RING1, respectively.
Subcellular Localization	Cytoplasm, Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross reactivity with other proteins.
Protein Function	Downstream effector of TOR signaling pathway involved in osmotic stress response. Could be involved in the control of plant growth and development. Phosphorylates the ribosomal proteins P14, P16 and S6. Functions as a repressor of cell proliferation and required for maintenance of chromosome stability and ploidy levels through the RBR1-E2F pathway.
Product Categories/Family for anti-RING1 antibody	Primary Antibodies; Signal Transduction; Signaling Pathway; Small G Proteins
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-RING1 antibody	Western Blot (WB), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS), ELISA (EIA)

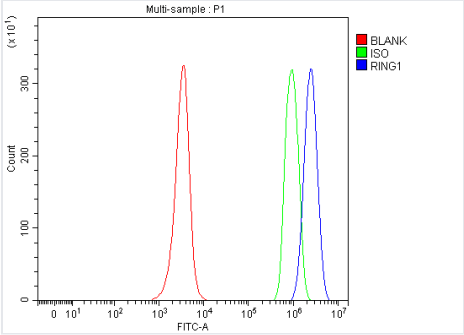
Application Notes for anti-RING1 antibody	WB: 0.5-1ug/ml, Human, Rat ICC/IF: 5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-RING1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product References and Citations for anti-RING1 antibody	1. de Napoles, M., Mermoud, J. E., Wakao, R., Tang, Y. A., Endoh, M., Appanah, R., Nesterova, T. B., Silva, J., Otte, A. P., Vidal, M., Koseki, H., Brockdorff, N. Polycomb group proteins Ring1A/B link ubiquitylation of histone H2A to heritable gene silencing and X inactivation. Dev. Cell 7: 663-676, 2004.2. Kikuti, Y. Y., Tamiya, G., Ando, A., Chen, L., Kimura, M., Ferreira, E., Tsuji, K., Trowsdale, J., Inoko, H. Physical mapping 220 kb centromeric of the human MHC and DNA sequence analysis of the 43-kb segment including the RING1, HKE6, and HKE4 genes. Genomics 42: 422-435, 1997.3. Lovering, R., Hanson, I. M., Borden, K. L. B., Martin, S., O'Reilly, N. J., Evan, G. I., Rahman, D., Pappin, D. J. C., Trowsdale, J., Freemont, P. S. Identification and preliminary characterization of a protein motif related to the zinc finger. Proc. Nat. Acad. Sci. 90: 2112-2116, 1993.
Other Notes	Small volumes of anti-RING1 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 RING1 purchase	MBS1758237 is an antibody targeting RING1. Also known as Anti-RING1 Antibody Picoband. Reactive in Human, Rat. Host: Rabbit.



Western Blot (WB) of anti-RING1 antibody
Figure 1. Western blot analysis of RING1 using anti-RING1 antibody (MBS1758237).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human HEL whole cell lysates,Lane 2: human Hela whole cell lysates,Lane 3: human Jurkat whole cell lysates,Lane 4: rat PC-12 whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-RING1 antigen affinity purified polyclonal antibody (#MBS1758237) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (#MBS176460) with Tanon 5200 system. A specific band was detected for RING1 at approximately 50 kDa. The expected band size for RING1 is at 43 kDa.



Immunofluorescence (IF) of anti-RING1 antibody
Figure 2. IF analysis of RING1 using anti-RING1 antibody (MBS1758237) and anti-Beta Tubulin antibody (M01857-3).RING1 was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (#MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-RING1 Antibody (MBS1758237) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and FITC Conjugated Goat Anti-Mouse IgG (BA1101) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-RING1 antibody
Figure 3. Flow Cytometry analysis of JK cells using anti-RING1 antibody (MBS1758237).Overlay histogram showing JK cells stained with MBS1758237 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RING1 Antibody (MBS1758237, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RING1. It may not necessarily be applicable to this product.

NCBI GI #	90110053
NCBI GeneID	6015
NCBI Accession #	Q06587.2
UniProt Primary Accession #	Q06587
UniProt Secondary Accession #	Q5JP96; Q5SQW2; Q86V19; A8JZZ0
UniProt Related Accession #	Q06587
NCBI Official Full Name	E3 ubiquitin-protein ligase RING1
NCBI Official Synonym Full Names	ring finger protein 1
NCBI Official Symbol	RING1
NCBI Official Synonym Symbols	RNF1; RING1A
UniProt Protein Name	E3 ubiquitin-protein ligase RING1
UniProt Synonym Protein Names	Polycomb complex protein RING1; RING finger protein 1; Really interesting new gene 1 protein
Protein Family	E3 ubiquitin-protein ligase
UniProt Gene Name	RING1
UniProt Synonym Gene Names	RNF1
UniProt Entry Name	RING1_HUMAN
NCBI Protein Information	E3 ubiquitin-protein ligase RING1; polycomb complex protein RING1; really interesting new gene 1 protein
NCBI Summary for RING1	This gene belongs to the RING finger family, members of which encode proteins characterized by a RING domain, a zinc-binding motif related to the zinc finger domain. The gene product can bind DNA and can act as a transcriptional repressor. It is associated with the multimeric polycomb group protein complex. The gene product interacts with the polycomb group proteins BMI1, EDR1, and CBX4, and colocalizes with these proteins in large nuclear domains. It interacts with the CBX4 protein via its glycine-rich C-terminal domain. The gene maps to the HLA class II region, where it is contiguous with the RING finger genes FABGL and HKE4. [provided by RefSeq, Jul 2008]

UniProt Comments for RING1	RING1: Constitutes one of the E3 ubiquitin-protein ligases that mediate monoubiquitination of 'Lys-119' of histone H2A, thereby playing a central role in histone code and gene regulation. H2A 'Lys-119' ubiquitination gives a specific tag for epigenetic transcriptional repression and participates in X chromosome inactivation of female mammals. Essential 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, rendering chromatin heritably changed in its expressibility. Compared to RNF2/RING2, it does not have the main E3 ubiquitin ligase activity on histone H2A, and it may rather act as a modulator of RNF2/RING2 activity. Component of chromatin-associated Polycomb (PcG) complexes. Interacts with BMI1. Part of the E2F6.com-1 complex in G0 phase composed of E2F6, MGA, MAX, TFDP1, CBX3, BAT8, EUHMTASE1, RING1, RNF2/RING2 MBLR, L3MBTL2 and YAF2. Interacts with CBX2 and PCGF6. Component of a PRC1-like complex. Component of repressive BCOR complex containing Polycomb group subcomplex at least composed of RYBP, PCGF1, BCOR and RNF2/RING2. Interacts with PCGF2, RNF2; CBX6, CBX7 and CBX8. Interacts with PHC2. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Ligase; Transcription factor; EC 6.3.2.-; EC 6.3.2.19; Ubiquitin conjugating system; Ubiquitin ligase Chromosomal Location of Human Ortholog: 6p21.3 Cellular Component: nucleoplasm; sex chromatin; cytoplasm; nuclear speck; PcG protein complex; nucleus Molecular Function: protein binding; zinc ion binding; ubiquitin-protein ligase activity; chromatin binding; ligase activity Biological Process: anterior/posterior pattern formation; camera-type eye morphogenesis; transcription, DNA-dependent; negative regulation of transcription, DNA-dependent
Research Articles on RING1	**1.** HSCARG interacts with RING1 and inhibits RING1 ubiquitination.
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