10320 Camino Santa Fe, Suite G
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Ring1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1804a

Specification

Ring1 Antibody - Product Information

Application	**E, WB, FC, IHC**
Primary Accession	Q06587
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**42.4kDa KDa**

Description
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.

Immunogen
Purified recombinant fragment of human Ring1 (AA: 79-263) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

Ring1 Antibody - Additional Information

Gene ID 6015

Other Names
E3 ubiquitin-protein ligase RING1, 6.3.2.-, Polycomb complex protein RING1, RING finger protein 1, Really interesting new gene 1 protein, RING1, RNF1

Dilution
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Ring1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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Ring1 Antibody - Protein Information

Name RING1 (HGNC:10018)

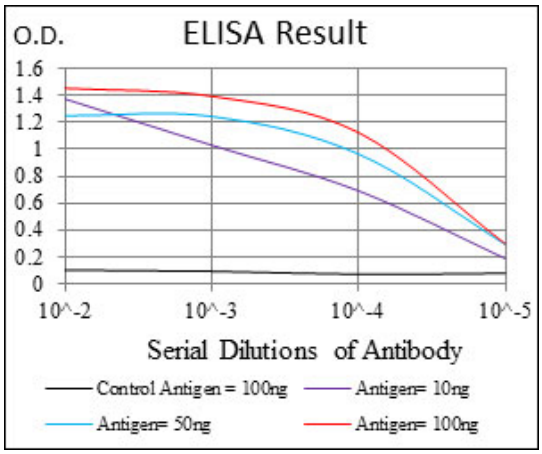
Function
Constitutes one of the E3 ubiquitin-protein ligases that mediate monoubiquitination of 'Lys-119' of histone H2A, thereby playing a central role in histone code and gene regulation. H2A 'Lys-119' ubiquitination gives a specific tag for epigenetic transcriptional repression and participates in 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.

Cellular Location
Nucleus. Nucleus speckle

Ring1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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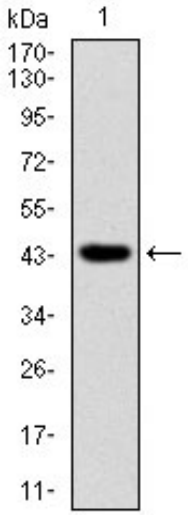

Figure 1: Western blot analysis using Ring1 mAb against human Ring1 recombinant protein. (Expected MW is 44.6 kDa)

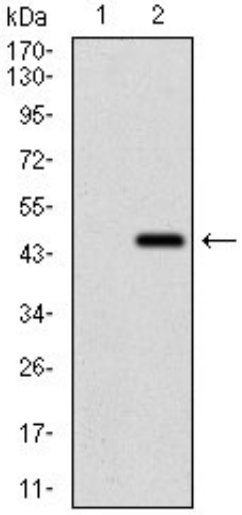

Figure 2: Western blot analysis using Ring1 mAb against HEK293 (1) and Ring1 (AA: 79-263)-hIgGFc transfected HEK293 (2) cell lysate.

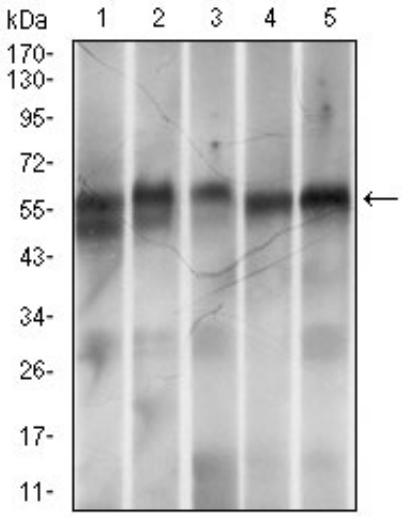

Figure 3: Western blot analysis using Ring1 mouse mAb against MOLT-4 (1), LNCaP (2), Hela (3), HEK-293 (4) and Jurkat (5) cell lysate.

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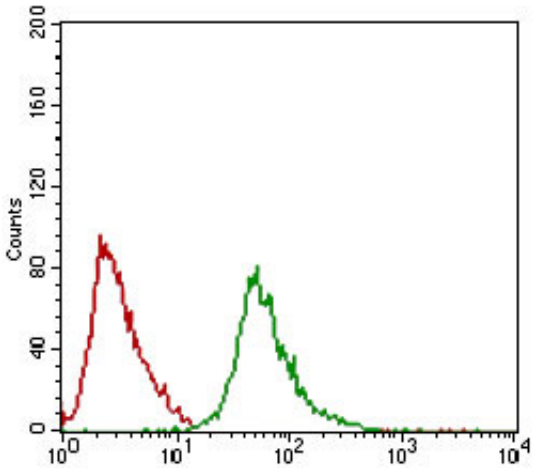

Figure 4: Flow cytometric analysis of Hela cells using Ring1 mouse mAb (green) and negative control (red).

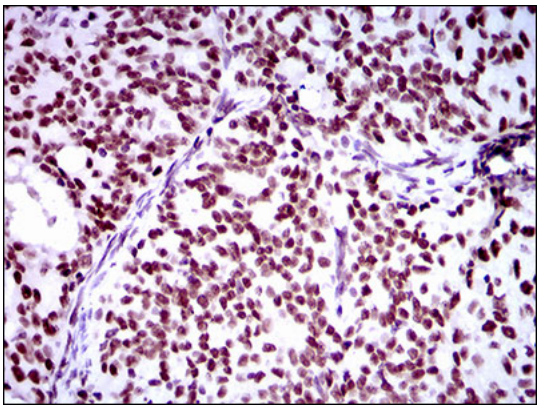

Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using Ring1 mouse mAb with DAB staining.

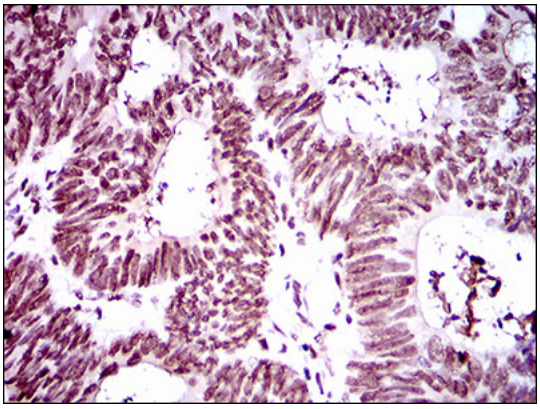

Figure 6: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using Ring1 mouse mAb with DAB staining.

Ring1 Antibody - Background

This gene encodes a large protein that resides in the limiting membrane of endosomes and lysosomes and mediates intracellular cholesterol trafficking via binding of cholesterol to its N-terminal domain. It is predicted to have a cytoplasmic C-terminus, 13 transmembrane domains, and 3 large loops in the lumen of the endosome - the last loop being at the N-terminus. This protein transports low-density lipoproteins to late endosomal/lysosomal compartments where they are hydrolized and released as free cholesterol. Defects in this gene cause Niemann-Pick type C disease, a rare autosomal recessive neurodegenerative disorder characterized by over accumulation of

cholesterol and glycosphingolipids in late endosomal/lysosomal compartments.

Ring1 Antibody - References

1.Int J Dev Biol. 2009;53(2-3):355-70. 2.PLoS One. 2009 Dec 1;4(12):e8104.