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RING1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14560A

Product Information

Application	WB, E
Primary Accession	Q06587
Other Accession	Q6MGB6, O35730, NP_002922.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34519
Calculated MW	42429
Antigen Region	95-123

Additional Information

Gene ID	6015
Other Names	E3 ubiquitin-protein ligase RING1, 632-, Polycomb complex protein RING1, RING finger protein 1, Really interesting new gene 1 protein, RING1, RNF1
Target/Specificity	This RING1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 95-123 amino acids from the N-terminal region of human RING1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RING1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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

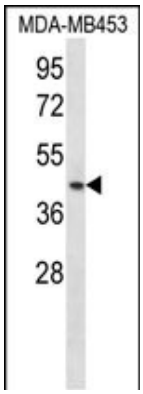
Background

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.

References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
de Bie, P., et al. Biochem. Biophys. Res. Commun. 400(3):389-395(2010)
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Barcellos, L.F., et al. PLoS Genet. 5 (10), E1000696 (2009) :
Vidal, M. Int. J. Dev. Biol. 53 (2-3), 355-370 (2009) :

Images



RING1 Antibody (N-term) (Cat. #AP14560a) western blot analysis in MDA-MB453 cell line lysates (35ug/lane).This demonstrates the RING1 antibody detected the RING1 protein (arrow).

Citations

- HSCARG, a novel regulator of H2A ubiquitination by downregulating PRC1 ubiquitin E3 ligase activity, is essential for cell proliferation.

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