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Goat Anti-RNF2 / dinG Antibody
Peptide-affinity purified goat antibody
Catalog # AF1933a

Specification

Goat Anti-RNF2 / dinG Antibody - Product Information

Application	**WB**
Primary Accession	Q99496
Other Accession	NP_009143, 6045, 19821 (mouse)
Reactivity	**Human**
Predicted	**Mouse, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**37655**

Goat Anti-RNF2 / dinG Antibody - Additional Information

Gene ID 6045

Other Names
E3 ubiquitin-protein ligase RING2, 6.3.2.-, Huntingtin-interacting protein 2-interacting protein 3, HIP2-interacting protein 3, Protein DinG, RING finger protein 1B, RING1b, RING finger protein 2, RING finger protein BAP-1, RNF2, BAP1, DING, HIPI3, RING1B

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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
Goat Anti-RNF2 / dinG Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-RNF2 / dinG Antibody - Protein Information

Name RNF2

Synonyms BAP1, DING, HIPI3, RING1B

Function
E3 ubiquitin-protein ligase that mediates monoubiquitination of 'Lys-119' of histone H2A (H2AK119Ub), thereby playing a central role in histone code and gene regulation (PubMed:<a

href="http://www.uniprot.org/citations/15386022" target="_blank">15386022, PubMed:16359901, PubMed:25519132, PubMed:33864376, PubMed:21772249, PubMed:25355358, PubMed:26151332). H2AK119Ub gives a specific tag for epigenetic transcriptional repression and participates in X chromosome inactivation of female mammals. May be involved in the initiation of both imprinted and random X inactivation (By similarity). 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 (PubMed:16359901, PubMed:26151332). PcG PRC1 complex acts via chromatin remodeling and modification of histones, rendering chromatin heritably changed in its expressibility (PubMed:26151332). E3 ubiquitin-protein ligase activity is enhanced by BMI1/PCGF4 (PubMed:21772249). Acts as the main E3 ubiquitin ligase on histone H2A of the PRC1 complex, while RING1 may rather act as a modulator of RNF2/RING2 activity (Probable). Association with the chromosomal DNA is cell-cycle dependent. In resting B- and T-lymphocytes, interaction with AURKB leads to block its activity, thereby maintaining transcription in resting lymphocytes (By similarity). Also acts as a negative regulator of autophagy by mediating ubiquitination of AMBRA1, leading to its subsequent degradation (By similarity).

Cellular Location
Nucleus. Cytoplasm {ECO:0000250|UniProtKB:Q9CQJ4}. Chromosome {ECO:0000250|UniProtKB:Q9CQJ4}. Note=Enriched on inactive X chromosome (Xi) in female trophoblast stem (TS) cells as well as differentiating embryonic stem (ES) cells. The enrichment on Xi is transient during TS and ES cell differentiation. The association with Xi is mitotically stable in non-differentiated TS cells. {ECO:0000250|UniProtKB:Q9CQJ4}

Goat Anti-RNF2 / dinG 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

Goat Anti-RNF2 / dinG Antibody - Images

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AF1933a staining (0.5 µg/ml) of K562 lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

Goat Anti-RNF2 / dinG Antibody - Background

Polycomb group (PcG) of proteins form the multiprotein complexes that are important for the transcription repression of various genes involved in development and cell proliferation. The protein encoded by this gene is one of the PcG proteins. It has been shown to interact with, and suppress the activity of, transcription factor CP2 (TFCP2/CP2). Studies of the mouse counterpart suggested the involvement of this gene in the specification of anterior-posterior axis, as well as in cell proliferation in early development. This protein was also found to interact with huntingtin interacting protein 2 (HIP2), an ubiquitin-conjugating enzyme, and possess ubiquitin ligase activity.

Goat Anti-RNF2 / dinG Antibody - References

Regulation of the polycomb protein Ring1B by self-ubiquitination or by E6-AP may have implications to the pathogenesis of Angelman syndrome. Zaaroor-Regev D, et al. Proc Natl Acad Sci U S A, 2010 Apr 13. PMID 20351251.
Polycomb group gene product Ring1B regulates Th2-driven airway inflammation through the inhibition of Bim-mediated apoptosis of effector Th2 cells in the lung. Suzuki A, et al. J Immunol, 2010 Apr 15. PMID 20237291.
Novel susceptibility loci for second primary tumors/recurrence in head and neck cancer patients: large-scale evaluation of genetic variants. Wu X, et al. Cancer Prev Res (Phila), 2009 Jul. PMID 19584075.
Role of polycomb proteins Ring1A and Ring1B in the epigenetic regulation of gene expression. Vidal M. Int J Dev Biol, 2009. PMID 19412891.
The synovial sarcoma-associated SYT-SSX2 oncogene antagonizes the polycomb complex protein Bmi1. Barco R, et al. PLoS One, 2009. PMID 19337376.