10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-RING2/RING1B/RNF2 Antibody

Catalog # ABO12777

Specification

Anti-RING2/RING1B/RNF2 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q99496
Host	**Rabbit**
Reactivity	**Human, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for E3 ubiquitin-protein ligase RING2(RNF2) detection. Tested with WB, IHC-P in Human;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-RING2/RING1B/RNF2 Antibody - Additional Information

Gene ID 6045

Other Names
E3 ubiquitin-protein ligase RING2, 2.3.2.27, 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, RING-type E3 ubiquitin transferase RING2, RNF2, BAP1, DING, HIPI3, RING1B

Calculated MW
37655 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization
Nucleus . Chromosome . 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 (By similarity). .

Protein Name
E3 ubiquitin-protein ligase RING2

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human RING2/ RING1B/RNF2

(257-290aa DHLSKYLAVRLALEELRSKGESNQMNLDTASEKQ), identical to the related mouse and rat sequences.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-RING2/RING1B/RNF2 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: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}

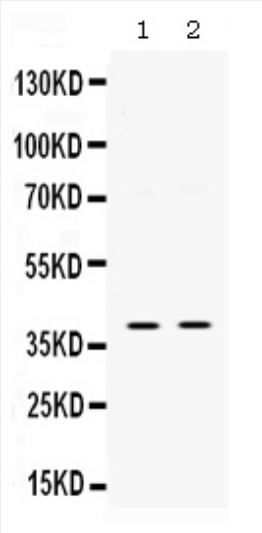
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Anti-RING2/RING1B/RNF2 Antibody - Protocols

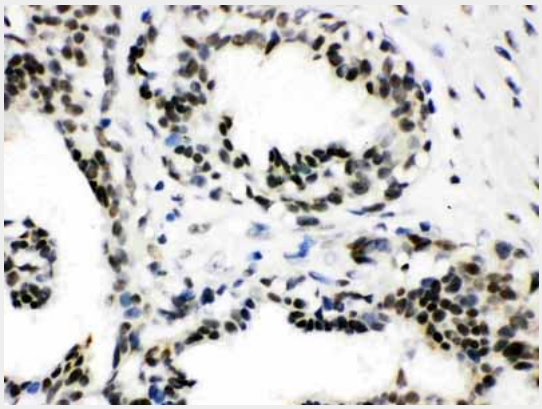
Provided below are standard protocols that you may find useful for product applications.

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

Anti-RING2/RING1B/RNF2 Antibody - Images



Western blot analysis of RING2/RING1B/RNF2 expression in rat brain extract (lane 1), and HELA whole cell lysates (lane 2). RING2/RING1B/RNF2 at 38KD was detected using rabbit anti-RING2/RING1B/RNF2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12777) at0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .



RING2/RING1B/RNF2 was detected in paraffin-embedded sections of human mammary cancer tissues using rabbit anti- RING2/RING1B/RNF2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12777) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .

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Anti-RING2/RING1B/RNF2 Antibody - Background

E3 ubiquitin-protein ligase RING2 is an enzyme that in humans is encoded by the RNF2 gene. 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.