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RNF123 Rabbit pAb

Catalog # AP98623

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q5XPI4
Other Accession	Q5XPI4
Reactivity	Human, Mouse
Predicted	Rat, Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	148515
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RNF123
Epitope Specificity	1-100/1314
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 B30.2/SPRY domain. Contains 1 RING-type zinc finger.
SUBUNIT	Component of the KPC complex composed of RNF123/KPC1 and UBAC1/KPC2. Interacts with UBAC1 and CDKN1B via its N-terminal domain.
Post-translational modifications	Ubiquitinated, leading to its degradation. Deubiquitinated by USP19, thereby stimulating CDKN1B ubiquitin-dependent degradation (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in protein-protein interactions and protein-DNA interactions. RNF123 (RING finger protein 123), also known as KPC1 (Kip1 (p27) ubiquitination-promoting complex protein 1) or FP1477, contains one RING-type zinc finger domain and one SPRY domain. Localizing to the cytoplasm, RNF123 functions as the catalytic component of the KPC complex that acts as an E3 ubiquitin-protein ligase. Specifically, RNF123 is essential for the ubiquitination and subsequent degradation of p27 during the cell cycle G1 phase. Via its N-terminus, RNF123 is known to interact with GBDR1 (another component of the KPC) and p27 (a cyclin-dependent kinase inhibitor). Due to alternative splicing events, two isoforms exist for RNF123.

Additional Information

Gene ID	63891
Other Names	FP1477; KPC1; RN123_HUMAN; RNF123; Kip1 ubiquitination-promoting complex protein 1; RING finger protein 123; 2.3.2.27; Kip1 ubiquitination-promoting complex subunit 1

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200,Flow-Cyt=1ug/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	RNF123 (HGNC:21148)
Function	Catalytic subunit of the KPC complex that acts as E3 ubiquitin-protein ligase (PubMed:15531880, PubMed:16227581, PubMed:25860612). Promotes the ubiquitination and proteasome-mediated degradation of CDKN1B which is the cyclin-dependent kinase inhibitor at the G0-G1 transition of the cell cycle (PubMed:15531880, PubMed:16227581). Also acts as a key regulator of the NF-kappa-B signaling by promoting maturation of the NFKB1 component of NF-kappa-B: acts by catalyzing ubiquitination of the NFKB1 p105 precursor, leading to limited proteasomal degradation of NFKB1 p105 and generation of the active NFKB1 p50 subunit (PubMed:25860612, PubMed:33168738, PubMed:34873064). Also functions as an inhibitor of innate antiviral signaling mediated by RIGI and IFIH1 independently of its E3 ligase activity (PubMed:27312109). Interacts with the N-terminal CARD domains of RIGI and IFIH1 and competes with the downstream adapter MAVS (PubMed:27312109).
Cellular Location	Cytoplasm

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