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RNF31 Rabbit pAb

Catalog # AP97944

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q96EP0
Other Accession	Q96EP0
Reactivity	Rat, Human, Mouse
Predicted	Pig, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	119652
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RNF31/HOIP
Epitope Specificity	671-780/1072
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 IBR-type zinc finger.Contains 3 RanBP2-type zinc fingers. Contains 2 RING-type zinc fingers. Contains 1 UBA domain.
SUBUNIT	Interacts with MUSK. Component of the LUBAC complex (linear ubiquitin chain assembly complex) which consists of SHARPIN, RBCK1 and RNF31. LUBAC has a MW of approximative 600 kDa suggesting a heteromultimeric assembly of its subunits. Associates with the TNF-R1 signaling complex (TNF-RSC) in a stimulation-dependent manner. Contains 1 UBA domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	E3 ubiquitin-protein ligase component of the LUBAC complex which conjugates linear polyubiquitin chains in a head-to-tail manner to substrates and plays a key role in NF-kappa-B activation and regulation of inflammation. LUBAC conjugates linear polyubiquitin to IKBKG and RIPK1 and is involved in activation of the canonical NF-kappa-B and the JNK signaling pathways. Linear ubiquitination mediated by the LUBAC complex interferes with TNF-induced cell death and thereby prevents inflammation. LUBAC is proposed to be recruited to the TNF-R1 signaling complex (TNF-RSC) following polyubiquitination of TNF-RSC components by BIRC2 and/or BIRC3 and to conjugate linear polyubiquitin to IKBKG and possibly other components contributing to the stability of the complex. Binds polyubiquitin of different linkage types.

Additional Information

Gene ID	55072
Other Names	HOIP; IMD115; Paul; ZIBRA; Flj10111; mFLJ00217; RNF31_HUMAN; RNF31; HOIL-1-interacting protein (HOIP); RING finger protein 31; RING-type E3 ubiquitin transferase RNF31; Zinc in-between-RING-finger

	ubiquitin-associated domain protein; 2.3.2.31; RNF31_MOUSE; Putative Ariadne-like ubiquitin ligase (PAUL); HOIL-1-interacting protein
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:50-200,Flow-Cyt=2ug /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	RNF31 (HGNC:16031)
Function	E3 ubiquitin-protein ligase component of the LUBAC complex which conjugates linear ('Met-1'-linked) polyubiquitin chains to substrates and plays a key role in NF-kappa-B activation and regulation of inflammation (PubMed:17006537, PubMed:19136968, PubMed:20005846, PubMed:21455173, PubMed:21455180, PubMed:21455181, PubMed:22863777, PubMed:28189684, PubMed:28481331). LUBAC conjugates linear polyubiquitin to IKBKG and RIPK1 and is involved in activation of the canonical NF-kappa-B and the JNK signaling pathways (PubMed:17006537, PubMed:19136968, PubMed:20005846, PubMed:21455173, PubMed:21455180, PubMed:21455181, PubMed:22863777, PubMed:28189684). Linear ubiquitination mediated by the LUBAC complex interferes with TNF- induced cell death and thereby prevents inflammation (PubMed:21455173, PubMed:28189684). LUBAC is recruited to the TNF-R1 signaling complex (TNF-RSC) following polyubiquitination of TNF-RSC components by BIRC2 and/or BIRC3 and to conjugate linear polyubiquitin to IKBKG and possibly other components contributing to the stability of the complex (PubMed:20005846, PubMed:27458237). The LUBAC complex is also involved in innate immunity by conjugating linear polyubiquitin chains at the surface of bacteria invading the cytosol to form the ubiquitin coat surrounding bacteria (PubMed:28481331, PubMed:34012115). LUBAC is not able to initiate formation of the bacterial ubiquitin coat, and can only promote formation of linear polyubiquitins on pre-existing ubiquitin (PubMed:28481331). Recruited to the surface of bacteria by RNF213, which initiates the bacterial ubiquitin coat (PubMed:34012115). The bacterial ubiquitin coat acts as an 'eat-me' signal for xenophagy and promotes NF-kappa-B activation (PubMed:28481331, PubMed:34012115). Together with OTULIN, the LUBAC complex regulates the canonical Wnt signaling during angiogenesis (PubMed:23708998). RNF31 is required for linear ubiquitination of BCL10, thereby promoting TCR-induced NF-kappa- B activation (PubMed:27777308). Binds polyubiquitin of different linkage types (PubMed:23708998).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q924T7}.
Tissue Location	Expressed in both normal and transformed breast epithelial cell lines.

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