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KD-Validated Anti-RNF31 Mouse Oligoclonal Antibody

Mouse oligoclonal antibody
Catalog # AGI2188

Product Information

Application	WB, FC, ICC
Primary Accession	Q96EP0
Reactivity	Rat, Human, Mouse
Clonality	Oligoclonal
Isotype	Mouse IgG
Calculated MW	119652
Gene Name	RNF31
Aliases	RNF31; Ring Finger Protein 31; ZIBRA; HOIP; HOIL-1-Interacting Protein; Paul; Zinc In-Between-RING-Finger Ubiquitin-Associated Domain Protein; RING-Type E3 Ubiquitin Transferase RNF31; E3 Ubiquitin-Protein Ligase RNF31; FLJ1011; FLJ23501; RING Finger Protein 31; EC 2.3.2.31; IMD115
Immunogen	Recombinant protein of human RNF31

Additional Information

Gene ID	55072
Other Names	E3 ubiquitin-protein ligase RNF31, 2.3.2.31, HOIL-1-interacting protein, HOIP, RING finger protein 31 {ECO:0000312|HGNC:HGNC:16031}, RING-type E3 ubiquitin transferase RNF31, Zinc in-between-RING-finger ubiquitin-associated domain protein, RNF31 (HGNC:16031)

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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