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KD-Validated Anti-RNF31 Mouse Oligoclonal Antibody

Mouse oligoclonal antibody
Catalog # AGI2188

Specification

KD-Validated Anti-RNF31 Mouse Oligoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q96EP0
Reactivity	**Rat, Human, Mouse**
Clonality	**Oligoclonal**
Isotype	**Mouse IgG**
Calculated MW	**Predicted, 120 kDa, observed, 120 kDa KDa**
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**

KD-Validated Anti-RNF31 Mouse Oligoclonal Antibody - 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)

KD-Validated Anti-RNF31 Mouse Oligoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/22863777"

target="_blank">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.

KD-Validated Anti-RNF31 Mouse Oligoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

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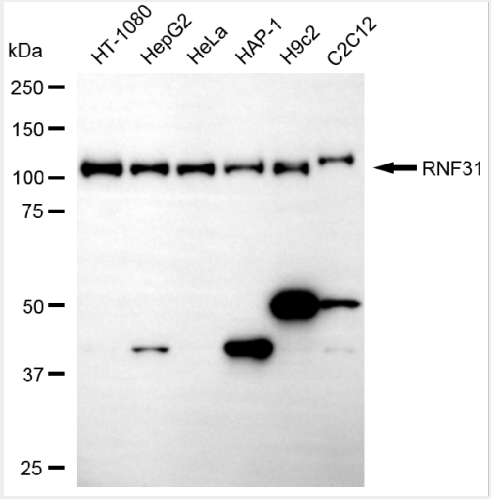
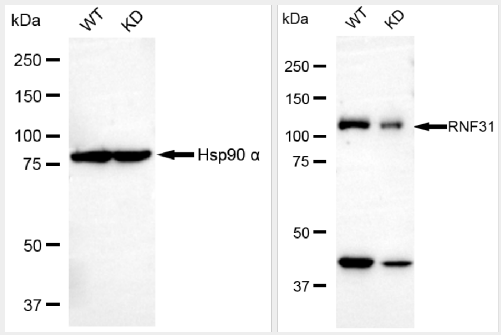
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-RNF31 Mouse Oligoclonal Antibody - Images



Western blotting analysis using anti-RNF31 antibody (Cat#AGI2188). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-RNF31 antibody (Cat#AGI2188, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-RNF31 antibody (Cat#AGI2188). RNF31 expression in wild-type (WT) and RNF31 knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-RNF31 antibody (Cat#AGI2188, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.

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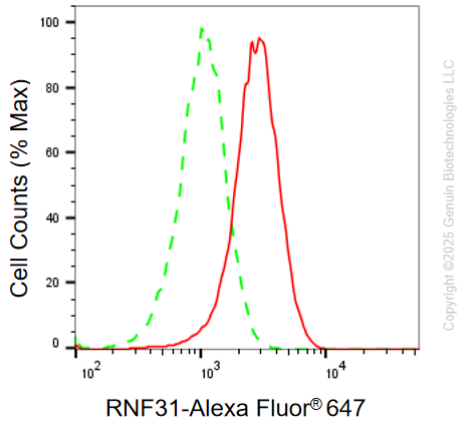
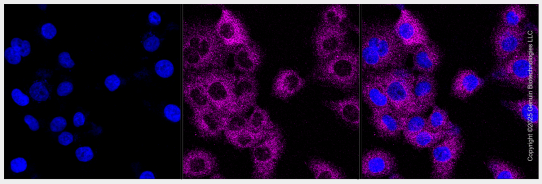


Flow cytometric analysis of RNF31 expression in HT-1080 cells using anti-RNF31 antibody (Cat#AGI2188, 1:2,000). Green, isotype control; red, RNF31.



Immunocytochemical staining of HT-1080 cells with anti-RNF31 antibody (Cat#AGI2188, 1:1,000). Nuclei were stained blue with DAPI; RNF31 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar, 20 µm.