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RBCK1 (UBCE7IP3) Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8638b

Product Information

Application	WB, E
Primary Accession	Q9BYM8
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Clone Names	1839CT718.19.54
Calculated MW	57572

Additional Information

Gene ID	10616
Other Names	RanBP-type and C3HC4-type zinc finger-containing protein 1, 6.3.2.-, HBV-associated factor 4, Heme-oxidized IRP2 ubiquitin ligase 1, HOIL-1, Hepatitis B virus X-associated protein 4, RING finger protein 54, Ubiquitin-conjugating enzyme 7-interacting protein 3, RBCK1, C20orf18, RNF54, UBCE7IP3, XAP3, XAP4
Target/Specificity	This RBCK1 (UBCE7IP3) antibody is generated from a mouse immunized with a recombinant protein of human RBCK1 (UBCE7IP3).
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RBCK1 (UBCE7IP3) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RBCK1
Function	E3 ubiquitin-protein ligase, which accepts ubiquitin from specific E2 ubiquitin-conjugating enzymes, such as UBE2L3/UBCM4, and then transfers it to substrates (PubMed:12629548, PubMed:17449468, PubMed:18711448).

Functions as an E3 ligase for oxidized IREB2 and both heme and oxygen are necessary for IREB2 ubiquitination (PubMed:12629548). Promotes ubiquitination of TAB2 and IRF3 and their degradation by the proteasome (PubMed:17449468, PubMed:18711448). 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:21455173, PubMed:21455180, PubMed:21455181). 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:21455173, PubMed:21455180, PubMed:21455181). Linear ubiquitination mediated by the LUBAC complex interferes with TNF-induced cell death and thereby prevents inflammation (PubMed:17006537, PubMed:21455173, PubMed:21455180, PubMed:21455181). 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:17006537, PubMed:19136968, PubMed:21455173, PubMed:21455180, PubMed:21455181). 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). 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). The bacterial ubiquitin coat acts as an 'eat-me' signal for xenophagy and promotes NF-kappa-B activation (PubMed:28481331). Together with OTULIN, the LUBAC complex regulates the canonical Wnt signaling during angiogenesis (PubMed:23708998). Binds polyubiquitin of different linkage types (PubMed:20005846, PubMed:21455181).

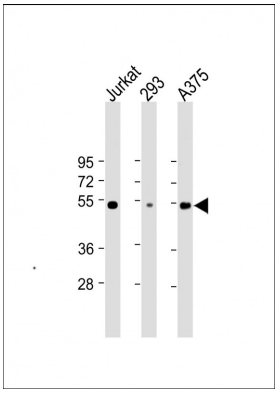
Background

E3 ubiquitin-protein ligase, which accepts ubiquitin from specific E2 ubiquitin-conjugating enzymes, such as UBE2L3/UBCM4, and then transfers it to substrates. Functions as an E3 ligase for oxidized IREB2 and both heme and oxygen are necessary for IREB2 ubiquitination. Promotes ubiquitination of TAB2 and IRF3 and their degradation by the proteasome. 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. 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. Together with FAM105B/otulin, the LUBAC complex regulates the canonical Wnt signaling during angiogenesis. Binds polyubiquitin of different linkage types.

References

Cong Y.-S.,et al.J. Biol. Chem. 272:16482-16489(1997).
Yamanaka K.,et al.Nat. Cell Biol. 5:336-340(2003).
Deloukas P.,et al.Nature 414:865-871(2001).
Hillman R.T.,et al.Genome Biol. 5:R8.1-R8.16(2004).
Zhang Y.,et al.Mol. Cell. Proteomics 4:1240-1250(2005).

Images



All lanes : Anti-RBCK1 (UBCE7IP3) Antibody at 1:2000 dilution Lane 1: Jurkat whole cell lysate Lane 2: 293 whole cell lysate Lane 3: A375 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.