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RBCK1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20236a

Product Information

Application	WB, E
Primary Accession	Q9BYM8
Other Accession	NP_112506.2
Reactivity	Human
Predicted	Mouse, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB42651
Calculated MW	57572
Antigen Region	1-30

Additional Information

Gene ID	10616
Other Names	RanBP-type and C3HC4-type zinc finger-containing protein 1, 632-, 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 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human RBCK1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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 Antibody (N-term) 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

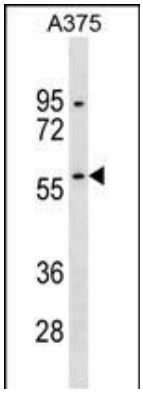
The protein encoded by this gene is similar to mouse UIP28/UbcM4 interacting protein. Alternative splicing has been observed at this locus, resulting in distinct isoforms. [provided by RefSeq].

References

Gustafsson, N., et al. Cancer Res. 70(3):1265-1274(2010)
Yoshimoto, N., et al. FEBS J. 276(21):6375-6385(2009)
Tokunaga, F., et al. Nat. Cell Biol. 11(2):123-132(2009)
Mullenders, J., et al. PLoS ONE 4 (3), E4798 (2009) :
Zhang, M., et al. Cell Res. 18(11):1096-1104(2008)

Images

RBCK1 Antibody (N-term) (Cat. #AP20236a) western blot analysis in A375 cell line lysates (35ug/lane).This demonstrates the RBCK1 antibody detected the RBCK1 protein (arrow).



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