

RBCK1 (UBCE7IP3) Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP2107a**Specification**

RBCK1 (UBCE7IP3) Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [Q9BYM8](#)**RBCK1 (UBCE7IP3) Antibody (N-term) Blocking peptide - 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

The synthetic peptide sequence used to generate the antibody [AP2107a](/product/products/AP2107a) was selected from the N-term region of human UBCE7IP3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RBCK1 (UBCE7IP3) Antibody (N-term) Blocking peptide - 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](http://www.uniprot.org/citations/12629548), PubMed: [17449468](http://www.uniprot.org/citations/17449468), PubMed: [18711448](http://www.uniprot.org/citations/18711448)). Functions as an E3 ligase for oxidized IREB2 and both heme and oxygen are necessary for IREB2 ubiquitination (PubMed: [12629548](http://www.uniprot.org/citations/12629548)). Promotes ubiquitination of TAB2 and IRF3 and their degradation by the proteasome (PubMed: [17449468](http://www.uniprot.org/citations/17449468), PubMed: [17449468](http://www.uniprot.org/citations/17449468)).

[18711448](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17006537), PubMed: [19136968](http://www.uniprot.org/citations/19136968), PubMed: [21455173](http://www.uniprot.org/citations/21455173), PubMed: [21455180](http://www.uniprot.org/citations/21455180), PubMed: [21455181](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17006537), PubMed: [19136968](http://www.uniprot.org/citations/19136968), PubMed: [21455173](http://www.uniprot.org/citations/21455173), PubMed: [21455180](http://www.uniprot.org/citations/21455180), PubMed: [21455181](http://www.uniprot.org/citations/21455181)). Linear ubiquitination mediated by the LUBAC complex interferes with TNF-induced cell death and thereby prevents inflammation (PubMed: [17006537](http://www.uniprot.org/citations/17006537), PubMed: [21455173](http://www.uniprot.org/citations/21455173), PubMed: [21455180](http://www.uniprot.org/citations/21455180), PubMed: [21455181](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17006537), PubMed: [19136968](http://www.uniprot.org/citations/19136968), PubMed: [21455173](http://www.uniprot.org/citations/21455173), PubMed: [21455180](http://www.uniprot.org/citations/21455180), PubMed: [21455181](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/28481331)). The bacterial ubiquitin coat acts as an 'eat-me' signal for xenophagy and promotes NF-kappa-B activation (PubMed: [28481331](http://www.uniprot.org/citations/28481331)). Together with OTULIN, the LUBAC complex regulates the canonical Wnt signaling during angiogenesis (PubMed: [23708998](http://www.uniprot.org/citations/23708998)). Binds polyubiquitin of different linkage types (PubMed: [20005846](http://www.uniprot.org/citations/20005846), PubMed: [21455181](http://www.uniprot.org/citations/21455181)).

RBCK1 (UBCE7IP3) Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

RBCK1 (UBCE7IP3) Antibody (N-term) Blocking peptide - Images

RBCK1 (UBCE7IP3) Antibody (N-term) Blocking peptide - Background

Ubiquitin is a 76 amino acid highly conserved eukaryotic polypeptide that selectively marks cellular proteins for proteolytic degradation by the 26S proteasome. The process of target selection, covalent attachment and shuttle to the 26S proteasome is a vital means of regulating the concentrations of key regulatory proteins in the cell by limiting their lifespans. Polyubiquitination is a common feature of this modification. Serial steps for modification include the activation of

ubiquitin, an ATP-dependent formation of a thioester bond between ubiquitin and the enzyme E1, transfer by transacylation of ubiquitin from E1 to the ubiquitin conjugating enzyme E2, and covalent linkage to the target protein directly by E2 or via E3 ligase enzyme. Deubiquitination enzymes also exist to reverse the marking of protein substrates. Posttranslational tagging by Ub is involved in a multitude of cellular processes, including the cell cycle, cell growth and differentiation, embryogenesis, apoptosis, signal transduction, DNA repair, regulation of transcription and DNA replication, transmembrane transport, stress responses, the immune response, and nervous system functions.

RBCK1 (UBCE7IP3) Antibody (N-term) Blocking peptide - References

Yamanaka, K., et al., Nat. Cell Biol. 5(4):336-340 (2003). Martinez-Noel, G., et al., FEBS Lett. 454(3):257-261 (1999).