

Recombinant Human RUBIC Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50860

Size: 10ug, 100ug

Protein Name: Run domain Beclin-1-interacting and cysteine-rich domain-containing protein (Rubicon) (Beclin-1 associated RUN domain containing protein) (Baron)

Synonym: RUBCN, KIAA0226

UniProt ID: Q92622

UniProt Link: www.uniprot.org/uniprotkb/Q92622/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 972 AA

Molecular Weight: 109 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MRPEGAGMELGGGEERLPEESRREHWQLLGNLKTTEGLVSTNSPNVWSKYGGLERLCRDMQSIL
YHGLIRDQACRRQTDYWQFVKDIRWLSPHSALHVEKFISVHENDQSSADGASERAVAEWLQHSLQ
YHCLSAQLRPLLGDQRQYIRKFYTDA AFLLSDAHVTAMLQCLEAVEQNNPRLLAQIDASMFARKHESP
LLVTKSQSLTALPSSTYTPPNSYAQHSYFGSFSSLHQSVPNNGSERRSTSFPLSGPPRKPQESRGH
VSPAEDQTIQAPPVSVSALARDSPLTPNEMSSSTLTSPIEASWVSSQNDSPGDASEGPEYLAIGNLD
PRGRTASCQSHSSNAESSSSNLFSSSSSQKPDASAASSLGDQEGGGESQLSSVLRRSSFSEGQTLT
VTSGAKKSHIRSHSDTSIASRGAPESCNDKAKLRGRLPYSGQSSEVSTPSSLYMEYEGGRYLCSGE
GMFRRPSEGQSLISYLSEQDFGSCADLEKENAHFSISESLIAAIELMKCNMMSQCLEEEVEEEDSD
REIQELKQKIRLRRQQIRTKNLLPMYQEAHGSFRVTSSSSQFSSRDSAQLSDSGSADEVDEFEIQD
ADIRRNTASSSKSFVSSQSFSHCFLHSTSAEAVAMGLLKQFEGMQLPAASELEWLVPEDAPQKLL
PIPDSLPIPDGQHADYKLRIRVRGNLEWAPPRPQIIFNVHPAPTRKIAVAKQNYRCAGCGIRTDPD
YIKRLRYCEYLGKYFCQCCHENAQMAIPSRVLRKWDFSKYYVSNFSKDLLIKIWN DPLFNVQDINSAL
YRKVKLLNQVRLRLRVQLCHMKNMFKTCRLAKELLD SFDTPVGHLTEDLHLYSLNDLTATRK GELGPR
LAELTRAGATHVERCMLCQAKGFICEFCQNEDDIIFPFELHKCRTCEECKACYHKACFKSGSCPRCE
RLQARREALARQSLESYLSDYEEEPAEALALEAAVLEAT

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Run domain Beclin-1-interacting and cysteine-rich domain-containing protein (Rubicon) (Beclin-1 associated RUN domain containing protein) (Baron) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Inhibits PI3K3 activity; under basal conditions negatively regulates PI3K complex II (PI3KC3-C2) function in autophagy. Negatively regulates endosome maturation and degradative endocytic trafficking and impairs autophagosome maturation process. Can sequester UVRAG from association with a class C Vps complex (possibly the HOPS complex) and negatively regulates Rab7 activation (PubMed:20974968, PubMed:21062745).; Involved in regulation of pathogen-specific host defense of activated macrophages. Following bacterial infection promotes NADH oxidase activity by association with CYBA thereby affecting TLR2 signaling and probably other TLR-NOX pathways. Stabilizes the CYBA:CYBB NADPH oxidase heterodimer, increases its association with TLR2 and its phagosome trafficking to induce antimicrobial burst of ROS and production of inflammatory cytokines (PubMed:22423966). Following fungal or viral infection (implicating CLEC7A (dectin-1)-mediated myeloid cell activation or RIGI-dependent sensing of RNA viruses) negatively regulates pro-inflammatory cytokine production by association with CARD9 and sequestering it from signaling complexes (PubMed:22423967).

Subcellular Localization: Late endosome . Lysosome . Early endosome . Note=Predominantly located in late endosomes/lysosomes, only partially detected in early endosome and not at all in the Golgi apparatus.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer- composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.