

Recombinant Human RBX2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50837

Size: 10ug, 100ug

Protein Name: RING-box protein 2 (Rbx2) (EC 2.3.2.27) (EC 2.3.2.32) (CKII beta-binding protein 1) (CKBBP1) (RING finger protein 7) (Regulator of cullins 2) (Sensitive to apoptosis gene protein)

Synonym: RNF7, RBX2, ROC2, SAG

UniProt ID: Q9UBF6

UniProt Link: www.uniprot.org/uniprotkb/Q9UBF6/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 113 AA

Molecular Weight: 13 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MADVEDGEETCALASHSGSSGSKSGGDKMFSLKKWNAVAMWSWDVECDTCAICRVQVMDACLRC
QAENKQEDCVVWGECHNSFHNCMSLWVKQNNRCPLCQQDWVVRIGK

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 RING-box protein 2 (Rbx2) (EC 2.3.2.27) (EC 2.3.2.32) (CKII beta-binding protein 1) (CKBBP1) (RING finger protein 7) (Regulator of cullins 2) (Sensitive to apoptosis gene protein) 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: Catalytic component of multiple cullin-5-RING E3 ubiquitin-protein ligase complexes (ECS complexes), which mediate the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:21980433, PubMed:33268465, PubMed:38418882, PubMed:38574733, PubMed:35512830, PubMed:40440427, PubMed:40963025). It is thereby involved in various biological processes, such as cell cycle progression, signal transduction and transcription (PubMed:21980433, PubMed:33268465, PubMed:38418882, PubMed:38574733). The functional specificity of the E3 ubiquitin-protein ligase ECS complexes depend on the variable SOCS box-containing substrate recognition component (PubMed:21980433, PubMed:33268465). Within ECS complexes, RNF7/RBX2 recruits the E2 ubiquitination enzyme to the complex via its RING-type and brings it into close proximity to the substrate (PubMed:34518685). Catalytic subunit of various SOCS-containing ECS complexes, such as the ECS(SOCS7) complex, that regulate reelin signaling by mediating ubiquitination and degradation of DAB1 (By similarity). The ECS(SOCS2) complex mediates the ubiquitination and subsequent proteasomal degradation of phosphorylated EPOR and GHR (PubMed:21980433, PubMed:25505247). Promotes ubiquitination and degradation of NF1, thereby regulating Ras protein signal transduction (By similarity). As part of the ECS(ASB9) complex, catalyzes ubiquitination and degradation of CKB (PubMed:33268465). The ECS(PSB3) complex catalyzes ubiquitination of nuclear CGAS (PubMed:38418882). As part of the ECS(RAB40C) complex, mediates ANKRD28 ubiquitination and degradation, thereby inhibiting protein phosphatase 6 (PP6) complex activity and focal adhesion assembly during cell migration (PubMed:35512830). The ECS(ASB7) complex acts a negative regulator of H3K9me3 histone mark by mediating ubiquitination and degradation of SUV39H1 (PubMed:40440427). As part of some ECS complex, catalyzes 'Lys-11'-linked ubiquitination and degradation of BTRC (PubMed:27910872). ECS complexes and ARIH2 collaborate in tandem to mediate ubiquitination of target proteins; ARIH2 mediating addition of the first ubiquitin on CRLs targets (PubMed:34518685, PubMed:38418882). As part of the ECS(LRRC58) complex, mediates CDO1 ubiquitination and degradation, regulating cysteine catabolism (PubMed:40963025). Specifically catalyzes the neddylation of CUL5 via its interaction with UBE2F (PubMed:19250909). Does not catalyze neddylation of other cullins (CUL1, CUL2, CUL3, CUL4A or CUL4B) (PubMed:19250909). May play a role in protecting cells from apoptosis induced by redox agents (PubMed:10082581).; [Isoform 2]: Inactive.; (Microbial infection) Following infection by HIV-1 virus, catalytic component of a cullin-5-RING E3 ubiquitin-protein ligase complex (ECS complex) hijacked by the HIV-1 Vif protein, which catalyzes ubiquitination and degradation of APOBEC3F and APOBEC3G.

Subcellular Localization: Cytoplasm . Nucleus .

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.