

RNF7 Blocking Peptide (N-term)
Synthetic peptide
Catalog # BP21564a**Specification**

RNF7 Blocking Peptide (N-term) - Product InformationPrimary Accession [Q9UBF6](#)**RNF7 Blocking Peptide (N-term) - Additional Information**

Gene ID 9616

Other Names

RING-box protein 2, Rbx2, CKII beta-binding protein 1, CKBBP1, RING finger protein 7, Regulator of cullins 2, Sensitive to apoptosis gene protein, RNF7, RBX2, ROC2, SAG

Target/Specificity

The synthetic peptide sequence is selected from aa 25-37 of HUMAN RNF7

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.

RNF7 Blocking Peptide (N-term) - Protein InformationName RNF7 ([HGNC:10070](#))**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](http://www.uniprot.org/citations/21980433), PubMed: [33268465](http://www.uniprot.org/citations/33268465), PubMed: [38418882](http://www.uniprot.org/citations/38418882), PubMed: [38574733](http://www.uniprot.org/citations/38574733), PubMed: [35512830](http://www.uniprot.org/citations/35512830)). It is thereby involved in various biological processes, such as cell cycle progression, signal transduction and transcription (PubMed: [21980433](http://www.uniprot.org/citations/21980433), PubMed: [33268465](http://www.uniprot.org/citations/33268465), PubMed: [38418882](http://www.uniprot.org/citations/38418882), PubMed: [38574733](http://www.uniprot.org/citations/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(SPSB3) 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). 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). 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).

Cellular Location

Cytoplasm. Nucleus

Tissue Location

Expressed in heart, liver, skeletal muscle and pancreas. At very low levels expressed in brain, placenta and lung

RNF7 Blocking Peptide (N-term) - Protocols

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

- [Blocking Peptides](#)

RNF7 Blocking Peptide (N-term) - Images

RNF7 Blocking Peptide (N-term) - Background

Probable component of the SCF (SKP1-CUL1-F-box protein) E3 ubiquitin ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins involved in cell cycle progression, signal transduction and transcription. Through the RING-type zinc finger, seems to recruit the E2 ubiquitination enzyme to the complex and brings it into close proximity to the substrate. Promotes the neddylation of CUL5 via its interaction with UBE2F. May play a role in protecting cells from apoptosis induced by redox agents.

RNF7 Blocking Peptide (N-term) - References

Son M.-Y., et al. *Biochem. Biophys. Res. Commun.* 263:743-748(1999).

Ohta T., et al. *Mol. Cell* 3:535-541(1999).

Duan H., et al. *Mol. Cell. Biol.* 19:3145-3155(1999).

Swaroop M., et al. *DNA Cell Biol.* 20:425-434(2001).

Kalnine N., et al. Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.