

BTRC Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP10095a**Specification**

BTRC Antibody (N-term) Blocking peptide - Product Information

Primary Accession [O9Y297](#)
Other Accession [NP_378663.1](#), [NP_003930.1](#)

BTRC Antibody (N-term) Blocking peptide - Additional Information

Gene ID 8945

Other Names

F-box/WD repeat-containing protein 1A, E3RSIkappaB, Epididymis tissue protein Li 2a, F-box and WD repeats protein beta-TrCP, plkappaBalpha-E3 receptor subunit, BTRC, BTRCP, FBW1A, FBXW1A

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.

BTRC Antibody (N-term) Blocking peptide - Protein Information

Name BTRC

Synonyms BTRCP, FBW1A, FBXW1A

Function

Substrate recognition component of a SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed: [10066435](http://www.uniprot.org/citations/10066435), PubMed: [10497169](http://www.uniprot.org/citations/10497169), PubMed: [10644755](http://www.uniprot.org/citations/10644755), PubMed: [10835356](http://www.uniprot.org/citations/10835356), PubMed: [11158290](http://www.uniprot.org/citations/11158290), PubMed: [11238952](http://www.uniprot.org/citations/11238952), PubMed: [11359933](http://www.uniprot.org/citations/11359933), PubMed: [11994270](http://www.uniprot.org/citations/11994270), PubMed: [12791267](http://www.uniprot.org/citations/12791267), PubMed: [12902344](http://www.uniprot.org/citations/12902344), PubMed: [14603323](http://www.uniprot.org/citations/14603323), PubMed: [14681206](http://www.uniprot.org/citations/14681206))

target="_blank">14681206, PubMed:14988407, PubMed:15448698, PubMed:15917222, PubMed:16371461, PubMed:22017875, PubMed:22017876, PubMed:22017877, PubMed:22087322, PubMed:25503564, PubMed:25704143, PubMed:36608670, PubMed:9859996, PubMed:9990852). Recognizes and binds to phosphorylated target proteins (PubMed:10066435, PubMed:10497169, PubMed:10644755, PubMed:10835356, PubMed:11158290, PubMed:11238952, PubMed:11359933, PubMed:11994270, PubMed:12791267, PubMed:12902344, PubMed:14603323, PubMed:14681206, PubMed:14988407, PubMed:15448698, PubMed:15917222, PubMed:16371461, PubMed:22017875, PubMed:22017876, PubMed:22017877, PubMed:22087322, PubMed:25503564, PubMed:25704143, PubMed:36608670, PubMed:9859996, PubMed:9990852). SCF(BTRC) mediates the ubiquitination of CTNNB1 and participates in Wnt signaling (PubMed:12077367, PubMed:12820959). SCF(BTRC) mediates the ubiquitination of phosphorylated NFKB1, ATF4, CDC25A, DLG1, FBXO5, PER1, SMAD3, SMAD4, SNAI1 and probably NFKB2 (PubMed:10835356, PubMed:11238952, PubMed:14603323, PubMed:14681206). SCF(BTRC) mediates the ubiquitination of NFKBIA, NFKBIB and NFKBIE; the degradation frees the associated NFKB1 to translocate into the nucleus and to activate transcription (PubMed:10066435, PubMed:10497169, PubMed:10644755, PubMed:9859996). Ubiquitination of NFKBIA occurs at 'Lys-21' and 'Lys- 22' (PubMed:10066435). The SCF(FBXW11) complex also regulates NF-kappa- B by mediating ubiquitination of phosphorylated

NFKB1: specifically ubiquitinates the p105 form of NFKB1, leading to its degradation (PubMed:10835356, PubMed:11158290, PubMed:14673179). SCF(BTRC) mediates the ubiquitination of CEP68; this is required for centriole separation during mitosis (PubMed:25503564, PubMed:25704143). SCF(BTRC) mediates the ubiquitination and subsequent degradation of nuclear NFE2L1 (By similarity). Has an essential role in the control of the clock- dependent transcription via degradation of phosphorylated PER1 and PER2 (PubMed:15917222). May be involved in ubiquitination and subsequent proteasomal degradation through a DBB1-CUL4 E3 ubiquitin-protein ligase. Required for activation of NFKB-mediated transcription by IL1B, MAP3K14, MAP3K1, IKKB and TNF. Required for proteolytic processing of GLI3 (PubMed:16371461). Mediates ubiquitination of REST, thereby leading to its proteasomal degradation (PubMed:18354482, PubMed:21258371). SCF(BTRC) mediates the ubiquitination and subsequent proteasomal degradation of KLF4; thereby negatively regulating cell pluripotency maintenance and embryogenesis (By similarity). SCF(BTRC) acts as a regulator of mTORC1 signaling pathway by catalyzing ubiquitination and subsequent proteasomal degradation of phosphorylated DEPTOR, TFE3 and MITF (PubMed:22017875, PubMed:22017876, PubMed:22017877, PubMed:33110214, PubMed:36608670). SCF(BTRC) directs 'Lys-48'-linked ubiquitination of UBR2 in the T-cell receptor signaling pathway (PubMed:38225265).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:Q3ULA2}. Nucleus {ECO:0000250|UniProtKB:Q3ULA2}

Tissue Location

Expressed in epididymis (at protein level).

BTRC Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

BTRC Antibody (N-term) Blocking peptide - Images

BTRC Antibody (N-term) Blocking peptide - Background

This gene encodes a member of the F-box protein family which is characterized by an approximately 40 amino acid motif, the F-box. The F-box proteins constitute one of the four subunits of ubiquitin protein ligase complex called SCFs (SKP1-cullin-F-box), which function in phosphorylation-dependent ubiquitination. The F-box proteins are divided into 3 classes: Fbws containing WD-40 domains, Fbls containing leucine-rich repeats, and Fbxs containing either different protein-protein interaction modules or non-recognizable motifs. The protein encoded by this gene belongs to the Fbws class; in addition to an F-box, this protein contains multiple WD-40 repeats. This protein is homologous to Xenopus bTrCP1, yeast Met30, Neurospora Scon2 and Drosophila Slimb proteins. It interacts with HIV-1 Vpu and connects CD4 to the proteolytic machinery. It also associates specifically with phosphorylated I κ B α and beta-catenin destruction

motifs, probably functioning in multiple transcriptional programs by activating the NF-kappaB pathway and inhibiting the beta-catenin pathway.

BTRC Antibody (N-term) Blocking peptide - References

Popov, N., et al. Nat. Cell Biol. 12(10):973-981(2010) Inuzuka, H., et al. Cancer Cell 18(2):147-159(2010) Guderian, G., et al. J. Cell. Sci. 123 (PT 13), 2163-2169 (2010) : Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) : Tsai, W.B., et al. PLoS ONE 5 (7), E11171 (2010) :