

BTRC Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11871a

Specification

BTRC Antibody (N-term) - Product Information

Application	IF, WB, IHC-P,E
Primary Accession	O9Y297
Other Accession	O3ULA2 , NP_378663
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	17-52

BTRC Antibody (N-term) - 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, plkappaBalphalpha-E3 receptor subunit, BTRC, BTRCP, FBW1A, FBXW1A

Target/Specificity

This BTRC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 17-52 amino acids from the N-terminal region of human BTRC.

Dilution

IF~~1:10~50
WB~~1:1000
IHC-P~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

BTRC Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

BTRC Antibody (N-term) - 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](#), 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](#)). 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, IKKBK 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).

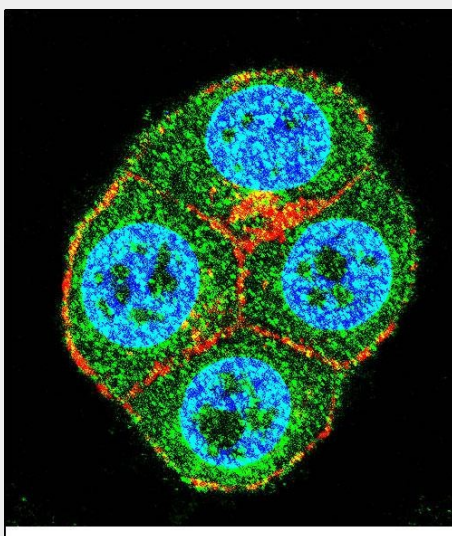
BTRC Antibody (N-term) - Protocols

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

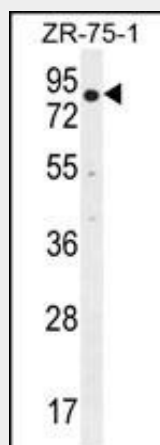
- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

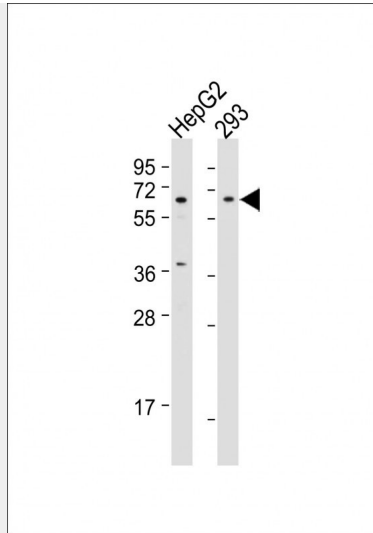
BTRC Antibody (N-term) - Images



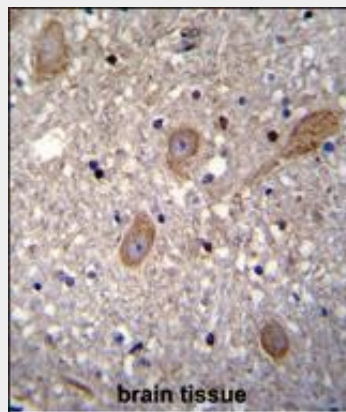
Confocal immunofluorescent analysis of BTRC Antibody (N-term)(Cat#AP11871a) with ZR-75-1 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).



BTRC Antibody (N-term) (Cat. #AP11871a) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This demonstrates the BTRC antibody detected the BTRC protein (arrow).



All lanes : Anti-BTRC Antibody (N-term) at 1:1000 dilution Lane 1: HepG2 whole cell lysate Lane 2: 293 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 69 kDa Blocking/Dilution buffer: 5% NFD/MTBST.



BTRC Antibody (N-term) (Cat. #AP11871a) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of BTRC Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

BTRC Antibody (N-term) - 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 no 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 IκBα and beta-catenin destruction motifs, probably functioning in multiple transcriptional programs by activating the NF-κB pathway and inhibiting the beta-catenin pathway.

BTRC Antibody (N-term) - 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) :

BTRC Antibody (N-term) - Citations

- [PAQR3 enhances Twist1 degradation to suppress epithelial-mesenchymal transition and metastasis of gastric cancer cells.](#)