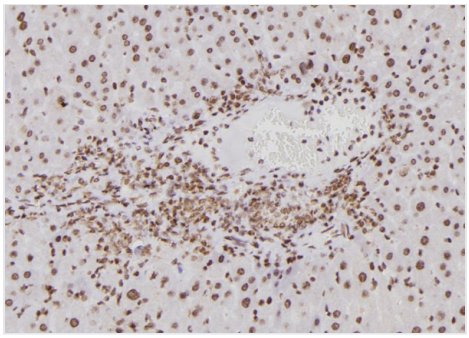
BTRC Antibody – Rabbit Polyclonal

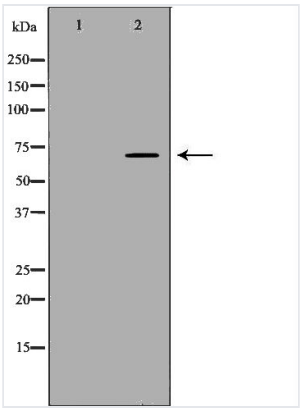
PRODUCT OVERVIEW

Product Name	BTRC, Polyclonal Antibody
Full Product Name	BTRC Antibody
Product Gene Name	anti-BTRC antibody
Product Synonym Names	Beta transducin repeat containing E3 ubiquitin protein ligase; beta TrCP1; beta-transducin repeat containing; BETA-TRCP; betaTrCP; btrC; bTrCP; bTrCP1; E3RSIkappaB; F box and WD repeat protein 1B; F box and WD repeats protein beta TrCP; F-box and WD repeats protein beta-TrCP; F-box/WD repeat protein 1A; F-box/WD repeat-containing protein 1A; FBW1A; FBW1A_HUMAN; FBXW1; FBXW1A; FWD1; HOS; mKIAA4123; pIkappaBalpha-E3 receptor subunit; Slimb
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Concentration	1mg/ml (lot specific)
Specificity	BTRC antibody detects endogenous levels of total BTRC
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	BTRC peptide (MBS9625906) is used for blocking the activity of BTRC antibody (MBS9607190)
Molecular Weight	Observed: 69 kDa Predicted: 69 kDa
3D Structure	ModBase 3D Structure for Q9Y297
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human BTRC
Subcellular Location	Cytoplasm. Nucleus.
Tissue Specificity	Expressed in epididymis (at protein level).
Predicted Cross Reactivity	**Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus**
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (80%), Rabbit (100%), Dog (100%), Chicken (92%), Xenopus (83%)
Conjugation	Unconjugated
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-BTRC antibody	Western Blot (WB), Immunohistochemistry (IHC), ELISA (EIA)
Application Notes for anti-BTRC antibody	WB: 1:500-1:2000 IHC: 1:50-1:200

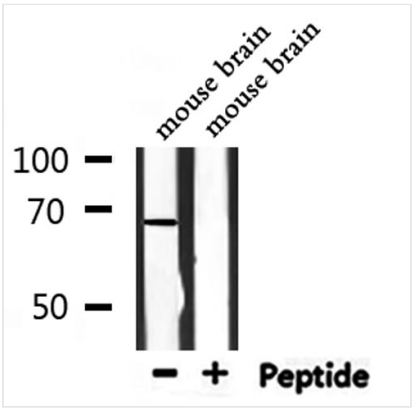
Related Product Information for anti-BTRC antibody	Description: Beta-transducin repeat-containing protein (beta-TrCP or FBW1A) is an F-box family protein characterized by the presence of the protein-protein mediating F-box domain first described in cyclin F. F-box proteins act as substrate adaptors that target proteins containing a specific phosphorylated sequence element, referred to as a phosphodegron, to the SCF E3 ubiquitin ligase complex for ubiquitination (1, 2). beta-TrCP targets many important proteins with diverse functions, such as p53, H-Ras, Smad4, IkappaBalpha, beta-catenin, and the cell cycle checkpoint protein claspin, for ubiquitin-mediated degradation (3-5). Research studies have shown that inhibition of beta-TrCP expression has a demonstrated benefit in the treatment of prostate cancer (6). 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. Recognizes and binds to phosphorylated target proteins (PubMed:10066435, PubMed:10497169, PubMed:10644755, PubMed:10835356, PubMed:11238952, PubMed:11359933, PubMed:11994270, PubMed:12791267, PubMed:12902344, PubMed:14603323, PubMed:14681206, PubMed:14988407, PubMed:15448698, PubMed:15917222, PubMed:16371461, PubMed:25503564, PubMed:25704143, PubMed:9859996). 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:14681206, PubMed:14603323). 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). Ubiquitination of NFKBIA occurs at 'Lys-21' and 'Lys-22' (PubMed:10066435). SCF(BTRC) mediates the ubiquitination of CEP68; this is required for centriole separation during mitosis (PubMed:25704143, PubMed:25503564). 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, IKBKB and TNF. Required for proteolytic processing of GLI3 (PubMed:16371461). Subunit Structure: Homodimer. Self-associates. Component of the SCF(BTRC) complex formed of CUL1, SKP1, RBX1 and a BTRC dimer. Direct interaction with SKP1 occurs via the F-box domain. Interacts with phosphorylated ubiquitination substrates SMAD3 and SMAD4. Interacts with phosphorylated ubiquitination substrates CTNNB1, NFKBIA, NFKBIB, NFKBIE, NFKB1/nuclear factor NF-kappa-B p105 subunit, ATF4, CDC25A, DLG1, FBXO5 and SNAI1; the interaction requires the phosphorylation of the 2 serine residues in the substrate destruction motif D-S-G-X(2, 3, 4)-S. Binds UBQLN1. Interacts with CDC34 and UBE2R2. Interacts with FBXW11. Interacts with CUL4A and DDB1. Part of a SCF(BTRC)-like complex lacking CUL1, which is associated with phosphorylated NKBIA and RELA; RELA interacts directly with NFKBIA. Interacts with the phosphorylated form of GLI3. Interacts with CLU. Interacts with PER1 (phosphorylated), PER2 (phosphorylated) and PER3. Interacts with phosphorylated ubiquitination substrate CEP68 (PubMed:25704143, PubMed:25503564). Interacts with ZC3H12A; this interaction occurs when ZC3H12A is phosphorylated in a IKBKB/IKKB-dependent manner (By similarity). Interacts with HSF1; this interaction occurs during mitosis and induces HSF1 ubiquitin-dependent degradation, a process inhibited by CDC20 (PubMed:18794143). Interacts with NFE2L1 (By similarity). Interacts with INAVA (PubMed:29420262). Similarity: The N-terminal D domain mediates homodimerization.
Other Notes	Small volumes of anti-BTRC antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BTRC purchase	MBS9607190 is an antibody targeting BTRC. Also known as BTRC Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Immunohistochemistry (IHC) of anti-BTRC antibody
MBS9607190 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



Western Blot (WB) of anti-BTRC antibody
Western blot analysis of extracts of Kidney, using BTRC antibody. The lane on the left is treated with the antigen-specific peptide.



Western Blot (WB) of anti-BTRC antibody
Western blot analysis of extracts from mouse brain, using BTRC Antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BTRC. It may not necessarily be applicable to this product.

NCBI GI #	4502477
NCBI GeneID	8945
NCBI Accession #	NP_003930.1
UniProt Primary Accession #	Q9Y297
UniProt Secondary Accession #	Q5W141; Q5W142; Q9Y213; B5MD49
UniProt Related Accession #	Q9Y297
GenBank Nucleotide #	NM_003939.4
NCBI Official Full Name	F-box/WD repeat-containing protein 1A isoform 2
NCBI Official Synonym Full Names	beta-transducin repeat containing E3 ubiquitin protein ligase
NCBI Official Symbol	BTRC
NCBI Official Synonym Symbols	FWD1; FBW1A; FBXW1; bTrCP; FBXW1A; bTrCP1; betaTrCP; BETA-TRCP
UniProt Protein Name	F-box/WD repeat-containing protein 1A
UniProt Synonym Protein Names	E3RSIkappaB; Epididymis tissue protein Li 2a; F-box and WD repeats protein beta-TrCP; pIkappaBalpha-E3 receptor subunit
Protein Family	F-box/WD repeat-containing protein

UniProt Gene Name	BTRC
UniProt Synonym Gene Names	BTRCP; FBW1A; FBXW1A
NCBI Protein Information	F-box/WD repeat-containing protein 1A
NCBI Summary for BTRC	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. The encoded protein mediates degradation of CD4 via its interaction with HIV-1 Vpu. It has also been shown to ubiquitinate phosphorylated NFKBIA (nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha), targeting it for degradation and thus activating nuclear factor kappa-B. Alternatively spliced transcript variants have been described. A related pseudogene exists in chromosome 6. [provided by RefSeq, Mar 2012]
UniProt Comments for BTRC	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. Recognizes and binds to phosphorylated target proteins (PubMed:10066435, PubMed:10497169, PubMed:10644755, PubMed:10835356, PubMed:11238952, PubMed:11359933, PubMed:11994270, PubMed:12791267, PubMed:12902344, PubMed:14603323, PubMed:14681206, PubMed:14988407, PubMed:15448698, PubMed:15917222, PubMed:16371461, PubMed:25503564, PubMed:25704143, PubMed:9859996). 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:14681206, PubMed:14603323). 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). Ubiquitination of NFKBIA occurs at 'Lys-21' and 'Lys-22' (PubMed:10066435). SCF(BTRC) mediates the ubiquitination of CEP68; this is required for centriole separation during mitosis (PubMed:25704143, PubMed:25503564). SCF(BTRC) mediates the ubiquitination and subsequent degradation of nuclear NFE2L1 (). 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, IKBKB and TNF. Required for proteolytic processing of GLI3 (PubMed:16371461).
Research Articles on BTRC	**1.** SAG/RBX2 E3 ligase complexes with UBCH10 and UBE2S ubiquitin-conjugating enzymes to ubiquitylate beta-TrCP1 via K11-linkage for degradation.
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