

PRODUCT INFORMATION

Product name : BTRC antibody

Product type : Primary antibodies

Description : Rabbit polyclonal to BTRC

Immunogen : 3 synthetic peptides (human) conjugated to KLH

Reacts with : Human, Mouse

Tested applications : ELISA, WB & IF

GENE INFORMATION

Gene Symbol : BTRC

Gene Name : beta-transducin repeat containing E3 ubiquitin protein ligase

Ensembl ID : ENSG00000166167

Entrez GeneID : 8945

GenBank Accession number : Y14153

Swiss-Prot : Q9Y297

Molecular weight of BTRC : 68.9 & 65kDa

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. SCF(BTRC) mediates the ubiquitination of CTNNB1 and participates in Wnt signaling. 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. Ubiquitination of NFKBIA occurs at 'Lys-21' and 'Lys-22'. SCF(BTRC) mediates the ubiquitination of phosphorylated NFKB1/nuclear factor NF-kappa-B p105 subunit, ATF4, SMAD3, SMAD4, CDC25A, DLG1, FBXO5 and probably NFKB2. SCF(BTRC) mediates the ubiquitination of phosphorylated SNAI1. 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.

Expected subcellular localization : Cytoplasm, Nucleus.

Expected tissue specificity : Expressed in epididymis (at protein level).

Summary : 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]

APPLICATION NOTE

Recommended dilution :

- **ELISA:** Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A minimum titer of 1/8000 is determined for one of the three peptides. Appropriate specificity controls were run.
- **WB:** 1/50.
- **IF:** 1/50.

Optimal dilutions/concentration should be determined by the end user.

Raised in : Rabbit

Clonality : Polyclonal

Isotype : IgG

Purity : Crude serum, final bleed

Storage buffer : Crude serum

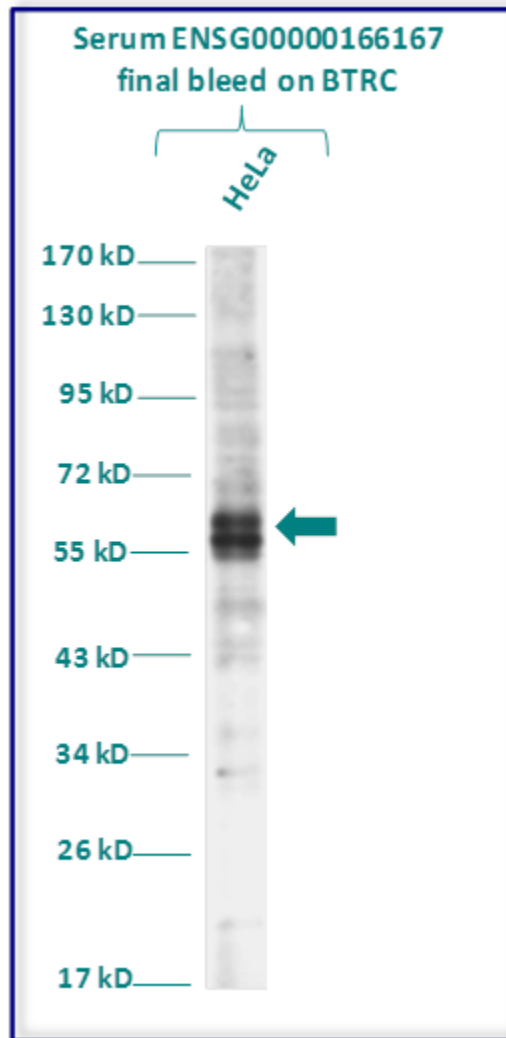
Form : Liquid

Storage instruction : Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

WESTERN BLOT ON CELL LYSATE

Western blot analysis of BTRC expression in protein extract of HeLa (Human cervix adenocarcinoma) cell line. The serum ENSG00000166167 has been tested at 1/50.

Molecular weight of BTRC : 68.9 & 65kDa



Gel concentration: 10%

Blocking: in 5% non-fat milk-PBST solution

1st Antibody: The antibodies are diluted in blocking buffer.

- Dilute the serum ENSG00000166167 at 1:50
- 60 minutes of incubation**

2nd Antibody: The antibody is diluted in blocking buffer.

- Dilute the anti-Rabbit IgG HRP conjugated at 1/10000
- 60 minutes of incubation**

IMMUNOFLUORESCENCE ANALYSIS

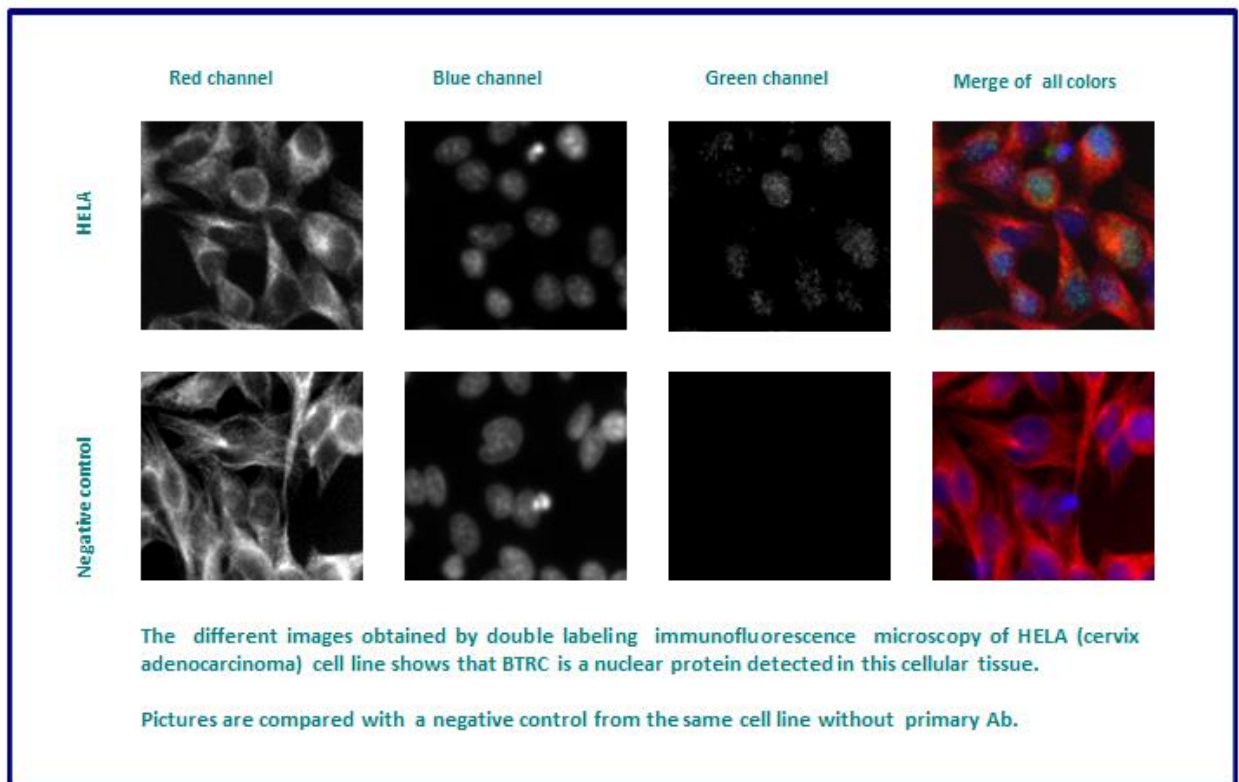
Immunofluorescence analysis of F-box/WD repeat-containing protein 1A (BTRC) expression in 5 cells lines (HELA, 293T/17, SAOS-2, SH-SY5Y, Skin 3.44). The crude serum ENSG00000166167 has been tested at 1/50.

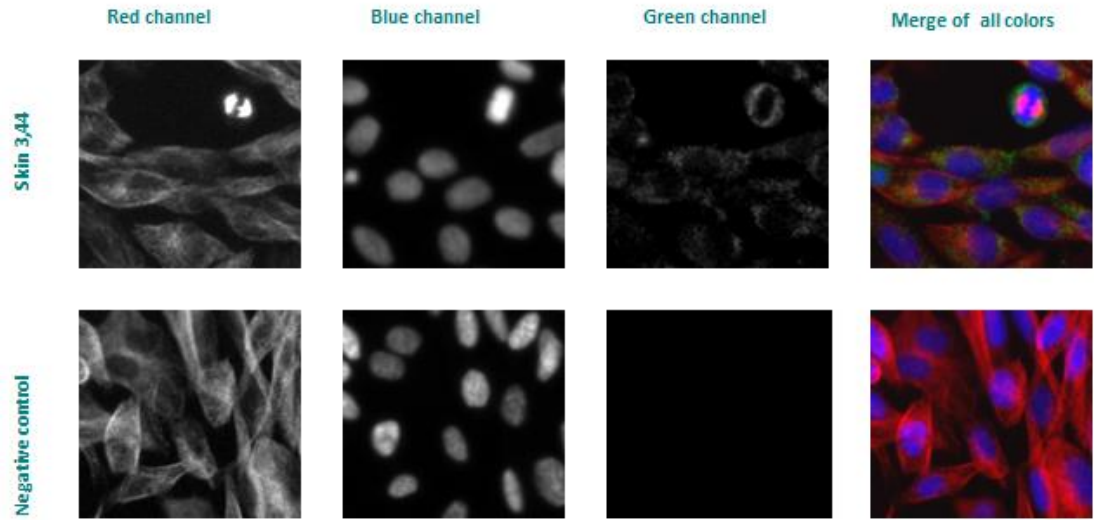
Red staining : cytoskeleton (microtubules/ α -tubuline)

Blue staining : nucleus (Hoechst)

Green staining : anti- BTRC antibody

Expected subcellular location : Cytoplasm. Nucleus





The different images obtained by double labeling immunofluorescence microscopy of Skin 3,44 (melanoma) cell line shows that BTRC is a cytoplasmic and nuclear protein detected in this cellular tissue.

Pictures are compared with a negative control from the same cell line without primary Ab.

Remaining cell lines tested gave a positive result with a cytoplasmic and nuclear distribution.