

ATF6 Monoclonal antibody

Catalog Number: 66563-1-Ig

Featured Product

21 Publications

Basic Information

Catalog Number:

66563-1-Ig

Size:

1000 µg/ml

Source:

Mouse

Isotype:

IgG1

Immunogen Catalog Number:

AG21456

GenBank Accession Number:

BC014969

GeneID (NCBI):

22926

UNIPROT ID:

P18850

Full Name:

activating transcription factor 6

Calculated MW:

75 kDa

Observed MW:

90-100 kDa

Purification Method:

Protein A purification

CloneNo.:

3B7E4

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:250-1:1000

IF 1:50-1:500

Applications

Tested Applications:

FC, IF/ICC, IHC, WB, ELISA

Cited Applications:

WB, IF

Species Specificity:

Human, mouse, rat

Cited Species:

human, rat, mouse, pig

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: U2OS cells, HeLa cells, HEK-293 cells, 4T1 cells, HSC-T6 cells, NIH/3T3 cells, RAW 264.7 cells, MCF-7 cells, Jurkat cells, K-562 cells

IHC: human cervical cancer tissue, human breast cancer tissue

IF: HepG2 cells,

Background Information

Activating transcription factor 6 (ATF6) is a transcription factor that acts during endoplasmic reticulum stress by activating unfolded protein response target genes. Binds DNA on the 5'-CCAC[GA]-3' half of the ER stress response element (ERSE) (5'-CCAAT-N(9)-CCAC[GA]-3') and of ERSE II (5'-ATTGG-N-CCACG-3'). Binding to ERSE requires binding of NF-Y to ERSE. Could also be involved in activation of transcription by the serum response factor. During unfolded protein response an approximative 50 kDa fragment containing the cytoplasmic transcription factor domain is released by proteolysis. The cleavage seems to be performed sequentially by site-1 and site-2 proteases. The fully glycosylated form of ATF6, a 670 amino acid protein, exhibits an electrophoretic mobility of ~90 kDa in denaturing SDS-gels, in part because of the glycosylated modifications. ATF6 has 3 consensus sites for N-linked glycosylation and exists constitutively as a glycosylated protein. Differentially glycosylated ATF6 forms may result from mutations or experimental treatment (PMID:15804611) (PMID:14699159). The antibody recognizes cleaved and fully glycosylated forms of ATF6.

Notable Publications

| Author | Pubmed ID | Journal | Application |
|--------------|-----------|---------------------------|-------------|
| Piaopiao Wen | 36139350 | Cells | WB |
| Qi Xu | 36341965 | Environ Toxicol Pharmacol | WB |
| Simin Zhou | 34744770 | Front Physiol | WB, IF |

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

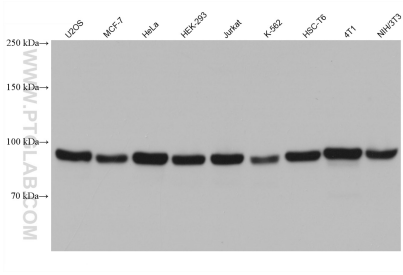
For technical support and original validation data for this product please contact:

T: 4006900926

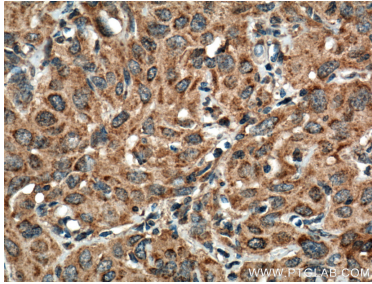
E: Proteintech-CN@ptglab.comW: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

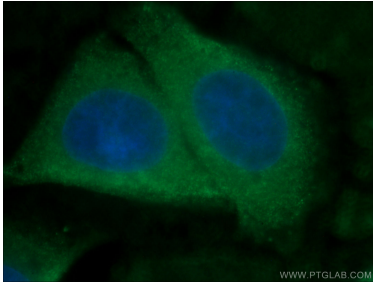
Selected Validation Data



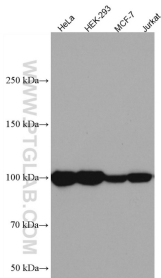
Various lysates were subjected to SDS PAGE followed by western blot with 66563-1-Ig (ATF6 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



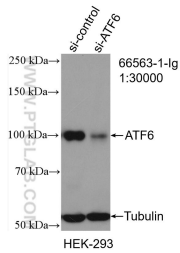
Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue slide using 66563-1-Ig (ATF6 antibody) at dilution of 1:500 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



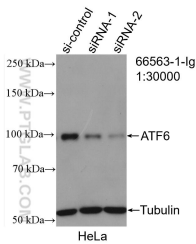
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 66563-1-Ig (ATF6 antibody) at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



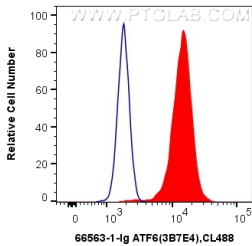
Various lysates were subjected to SDS PAGE followed by western blot with 66563-1-Ig (ATF6 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



WB result of ATF6 antibody (66563-1-Ig; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ATF6 transfected HEK-293 cells.



WB result of ATF6 antibody (66563-1-Ig; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ATF6 transfected HeLa cells.



1X10⁶ HeLa cells were intracellularly stained with 0.4 ug Anti-Human ATF6 (66563-1-Ig, Clone:3B7E4) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).