For Research Use Only

ATF6 Monoclonal antibody

Catalog Number:66563-1-Ig Featured Product 36 Publications

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Basic Information

Catalog Number:
66563-1-Ig

Size:
150ul , Concentration: 1000 ug/ml by Nanodrop;

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 G purification

CloneNo.:
3B7E4

Recommended Dilutions:
WB: 1:5000-1:50000
IHC: 1:250-1:1000
IF/ICC: 1:400-1:1600
FC (Intra): 0.40 ug per 10^6 cells in a 100 µl suspension

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, 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/ICC : HeLa cells,

FC (Intra) : HeLa 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

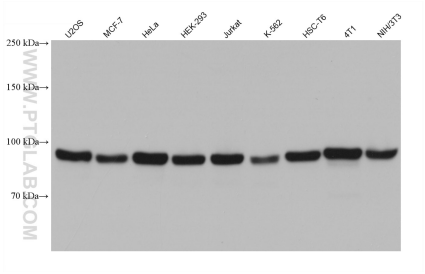
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

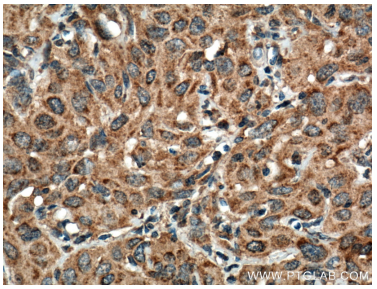
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

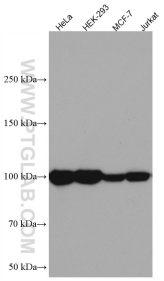
Selected Validation Data



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).



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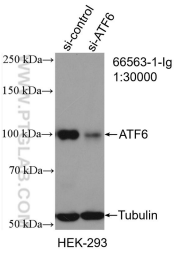
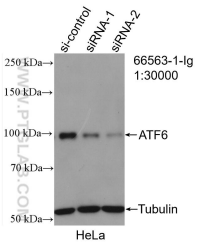
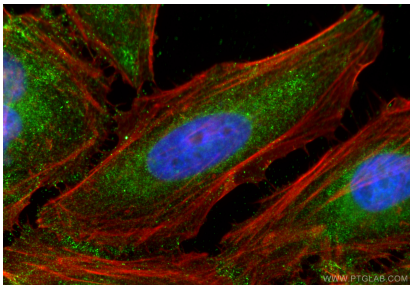


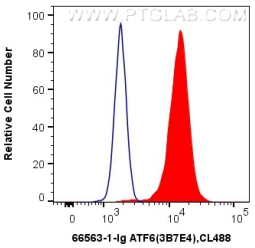
WB result of ATF6 antibody (66563-1-Ig; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ATF6 transfected HEK-293 cells.



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.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using ATF6 antibody (66563-1-Ig, Clone: 3B7E4) at dilution of 1:800 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002), CL594-phalloidin (red).



1X10^6 HeLa cells were intracellularly stained with 0.4 ug Anti-Human ATF6 (66563-1-Ig, Clone:3B7E4) and CoraLite®488-Conjugated 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).