

## Anti-ATF6 Antibody Picoband®

Catalog Number: A00655

### About ATF6

ATF6, a member of the leucine zipper protein family, is an endoplasmic reticulum (ER) stress-regulated transmembrane transcription factor that activates the transcription of ER molecules. This gene is mapped to chromosome 1q23.3. ATF6 can constitutively induce the promoter of glucose-regulated protein (grp) genes through activation of the endoplasmic reticulum (ER) stress element (ERSE).

### Overview

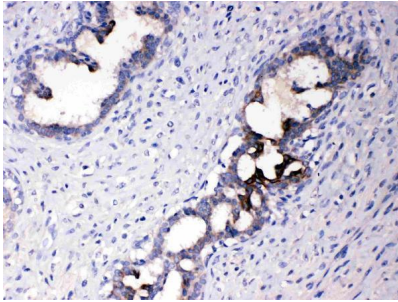
Product Name	Anti-ATF6 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ATF6 Antibody Picoband® catalog # A00655. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg Na <sub>3</sub> N. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P18850

### Technical Details

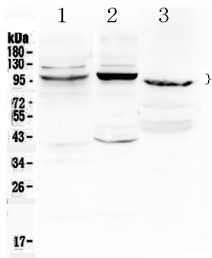
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ATF6, different from the related mouse and rat sequences by one amino acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins

Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

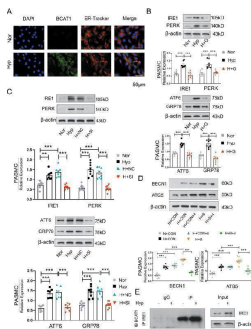
## Anti-ATF6 Antibody Picoband® (A00655) Images



IHC analysis of ATF6 using anti-ATF6 antibody (A00655). ATF6 was detected in paraffin-embedded section of human mammary cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ATF6 Antibody (A00655) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Western blot analysis of ATF6 using anti-ATF6 antibody (A00655). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat liver tissue lysates, Lane 2: mouse liver tissue lysates, Lane 3: MCF-7 whole Cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ATF6 antigen affinity purified polyclonal antibody (Catalog # A00655) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ATF6 at approximately 90 KD,100KD. The expected band size for ATF6 is at 75KD.



BCAT1 regulates autophagy through the endoplasmic reticulum stress pathway. a Expression of BCAT1 and ER-Tracker Red staining in PSMCs exposed to NOR or HYP for 24 h. Scale bar = 50 um ( n = 3). b Western blot analysis of PERK, IRE1, ATF6, and GRP78 protein expression in the ERs pathway in PSMCs treated with gabapentin ( n = 8). c Western blot analysis of IRE1, PERK, ATF6, and GRP78 expression in PSMCs transfected with BCAT1 siRNA ( n = 8). d Western blot analysis of BECN1 and Atg5 in PSMCs treated with the ERs pathway inhibitor 4-PBA and BCAT1 plasmid ( n = 8). e Coimmunoprecipitation of the whole-cell lysates of PSMCs exposed to normoxia or hypoxia for 24 h with anti-IRE1, followed by probing with anti-BCAT1 ( n = 3). Nor normoxia, Hyp hypoxia, H + G hypoxia plus gabapentin, H + NC hypoxia plus control siRNA, H + SI hypoxia plus BCAT1 siRNA, N + Con normoxia plus control vector, H + Con hypoxia plus control vector, H + B hypoxia plus BCAT1 plasmid, H + Con+4 hypoxia plus control vector plus 4-phenylbutyric acid, H + B + 4 hypoxia plus BCAT1 plasmid plus 4-phenylbutyric acid, IP immunoprecipitation, IB

immunoblotting. Statistical analysis was performed with one-way ANOVA. All values are presented as the mean  $\pm$  SEM. \*\*  
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## 1 Publications Citing This Product

1. PubMed ID: 10.3390/jcm10112529, GSH-Independent Induction of ER Stress during Hypoglycaemia in the Retinal Cells of Mice

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Anti-ATF6 Antibody

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