BOSTER BIOLOGICAL TECHNOLOGY
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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).

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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 Na2HPO4, and 0.05 mg NaN3. *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

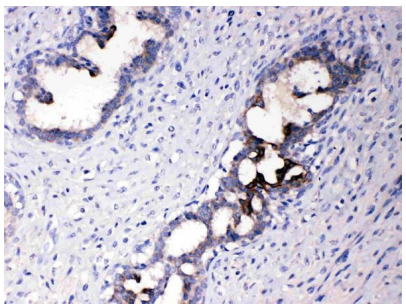
Technical Details

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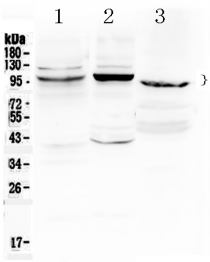
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ATF6, different from the related mouse and rat sequences by one amino acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated 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

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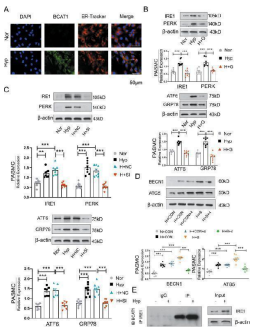
Anti-ATF6 Antibody Picoband® (A00655) Images



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 Strepavidin-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 PASMCs 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 PASMCs treated with gabapentin (n = 8). c Western blot analysis of IRE1, PERK, ATF6, and GRP78 expression in PASMCs transfected with BCAT1 siRNA (n = 8). d Western blot analysis of BECN1 and Atg5 in PASMCs treated with the ERs pathway inhibitor 4-PBA and BCAT1 plasmid (n = 8). e Coimmunoprecipitation of the whole-cell lysates of PASMCs 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

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immunoblotting. Statistical analysis was performed with one-way ANOVA. All values are presented as the mean ± SEM. ** $p < 0.01$; *** $p < 0.001$. Index in PubMed under a CC BY license. PMID: 32938905

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

Visit bosterbio.com/anti-atf6-picoband-trade-antibody-a00655-boster.html to see all 1 publications.

Anti-ATF6 Antibody

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