

Anti-ATF2 Antibody Picoband®

Catalog Number: PB9131-carrier-free

About ATF2

ATF2, also known as Activating transcription factor 2, is a protein that in humans is encoded by the ATF2 gene. It is mapped to 2q31.1. This gene encodes a transcription factor that is a member of the leucine zipper family of DNA-binding proteins. This protein binds to the cAMP-responsive element (CRE), an octameric palindrome. The protein forms a homodimer or heterodimer with c-Jun and stimulates CRE-dependent transcription. The protein is also a histone acetyltransferase (HAT) that specifically acetylates histones H2B and H4 in vitro, thus, it may represent a class of sequence-specific factors that activate transcription by direct effects on chromatin components. Additional transcript variants have been identified but their biological validity has not been determined.

Overview

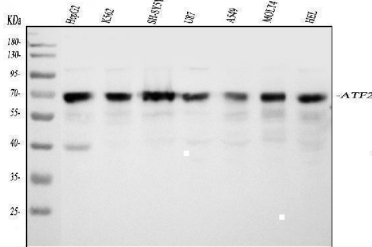
Product Name	Anti-ATF2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ATF2 Antibody Picoband® catalog # PB9131. Tested in Flow Cytometry, IHC, IHC-F, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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	Flow Cytometry, IHC, IHC-F, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg Na ₃ 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	P15336

Technical Details

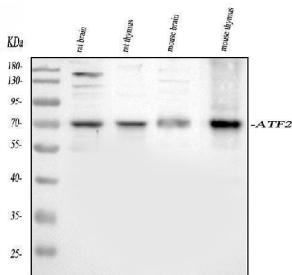
Immunogen	E.coli-derived human ATF2 recombinant protein (Position: E93-E450). Human ATF2 shares 99% amino acid (aa) sequence identity with both mouse and rat ATF2.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and IHC(F).
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	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

Anti-ATF2 Antibody Picoband® (PB9131-carrier-free) Images

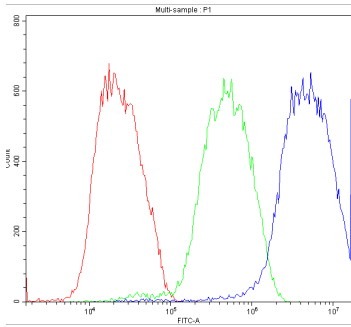


Western blot analysis of ATF2 using anti-ATF2 antibody (PB9131). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: human U87 whole cell lysates, Lane 5: human A549 whole cell lysates, Lane 6: human MOLT4 whole cell lysates, Lane 7: human HEL whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-ATF2 antigen affinity purified polyclonal antibody (Catalog # PB9131) 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 1:5000 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 ATF2 at approximately 65-70 kDa. The expected band size for ATF2 is at 65-70 kDa.

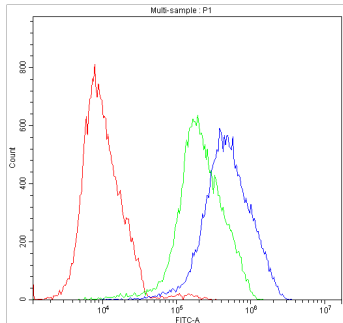


Western blot analysis of ATF2 using anti-ATF2 antibody (PB9131). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: rat thymus tissue lysates, Lane 3: mouse brain tissue lysates, Lane 4: mouse thymus tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-ATF2 antigen affinity purified polyclonal antibody (Catalog # PB9131) 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 1:5000 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 ATF2 at approximately 65-70 kDa. The expected band size for ATF2 is at 65-70 kDa.

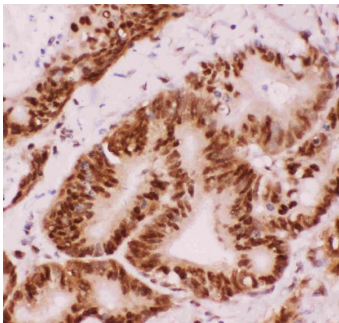
Flow Cytometry analysis of K562 cells using anti-ATF2 antibody (PB9131). Overlay histogram showing K562 cells stained with PB9131 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATF2 Antibody (PB9131, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit



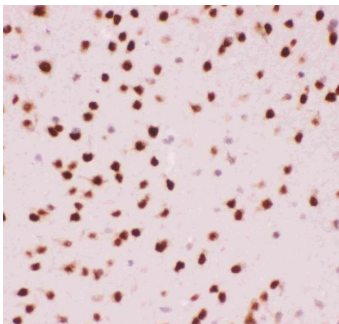
IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of HepG2 cells using anti-ATF2 antibody (PB9131). Overlay histogram showing HepG2 cells stained with PB9131 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATF2 Antibody (PB9131, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

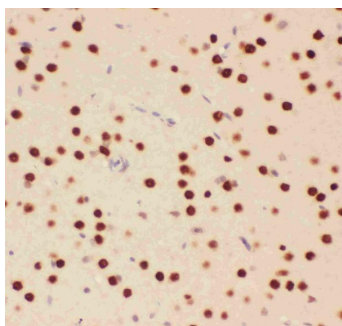


IHC analysis of ATF2 using anti-ATF2 antibody (PB9131). ATF2 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ATF2 Antibody (PB9131) 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.

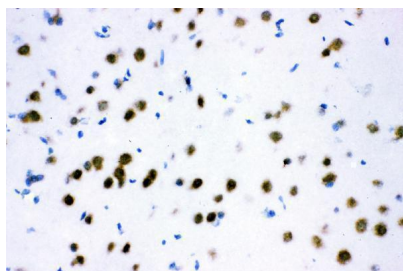


IHC analysis of ATF2 using anti-ATF2 antibody (PB9131). ATF2 was detected in paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ATF2 Antibody (PB9131) 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.

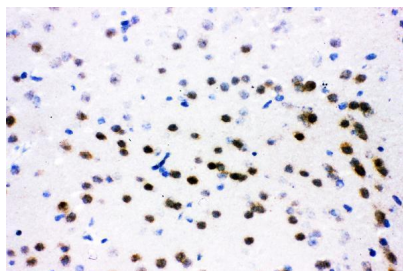
IHC analysis of ATF2 using anti-ATF2 antibody (PB9131). ATF2 was detected in paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The



tissue section was then incubated with 1ug/ml rabbit anti-ATF2 Antibody (PB9131) 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.



IHC analysis of ATF2 using anti-ATF2 antibody (PB9131). ATF2 was detected in frozen section of rat brain tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ATF2 Antibody (PB9131) 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.



IHC analysis of ATF2 using anti-ATF2 antibody (PB9131). ATF2 was detected in frozen section of mouse brain tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ATF2 Antibody (PB9131) 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.

1 Publications Citing This Product

1. PubMed ID: 33856409, Wu T,Liu Q,Li Y,Li H,Chen L,Yang X,Tang Q,Pu S,Kuang J,Li R,Huang Y,Zhang J,Zhang Z,Zhou J,Huang C,Zhang G,Zhao Y,Zou M,Jiang W,Mo L,He J.Feeding-induced hepatokine, Manf, ameliorates diet-induced obesity by promoting adipose browning via p38 MAPK pathway.J Exp Med.2021 Jun 7;218(6):e20201203.doi:10. 1084/jem. 20201203.PMID:33856409.

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Anti-ATF2 Antibody

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