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# Anti-ATF4 Antibody Picoband™

Catalog Number: A00371

# About ATF4

ATF4, Activating Transcription Factor 4, is also known as CREB2. ATF4 belongs to the large ATF/CREB family of transcription factors which bind DNA via their basic region and dimerize via their leucine zipper domain to form a variety of homo- and heterodimers to regulate gene transcription. It is identified that members of this family share significant sequence similarity within a leucine zipper DNA-binding motif and an adjacent basic region. The ATF4 gene is mapped to chromosome 22. Unlike CREB, which activates transcription from CRE-containing promoters, CREB2 functions as a specific repressor of CRE-dependent transcription. The transcriptional repressor activity resides within the C-terminal leucine zipper and basic domain region of the CREB2 protein.

### **Overview**

Product Name	Anti-ATF4 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-ATF4 Antibody Picoband™ catalog # A00371. Tested in WB applications. This antibody reacts with Human.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P18848

## **Technical Details**

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ATF4, different from the related mouse and rat sequences by five amino acids.
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized



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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human



#### BOSTER BIOLOGICAL TECHNOLOGY 3942 B Valley Ave, Pleasanton, CA 94566

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### Anti-ATF4 Antibody Picoband<sup>™</sup> (A00371) Images

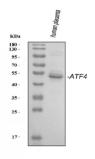


Figure 1. Western blot analysis of ATF4 using anti-ATF4 antibody (A00371).

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 placenta 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-ATF4 antigen affinity purified polyclonal antibody (Catalog # A00371) 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 ATF4 at approximately 50 kDa. The expected band size for ATF4 is at 39 kDa.

## **1** Publications Citing This Product

1. PubMed ID: 23826386, MARVELD1 Inhibits Nonsense-Mediated RNA Decay by Repressing Serine Phosphorylation of UPF1

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