

## Anti-AP2 alpha/TFAP2A Antibody Picoband™

Catalog Number: PB9118

### About TFAP2A

TFAP2A, also known as AP-2alpha or BOFS, is a protein that in humans is encoded by the TFAP2A gene. It is mapped to 6p24.3. The protein encoded by this gene is a transcription factor that binds the consensus sequence 5'-GCCNNNGGC-3'. The encoded protein functions as either a homodimer or as a heterodimer with similar family members. This protein activates the transcription of some genes while inhibiting the transcription of others. TFAP2A acts as a sequence-specific DNA-binding transcription factor recognizing and binding to the specific DNA sequence and recruiting transcription machinery. This gene is expressed in neural crest cell lineages with the highest levels of expression corresponding to early neural crest cells, suggesting that TFAP2A plays a role in their differentiation and development.

### Overview

Product Name	Anti-AP2 alpha/TFAP2A Antibody Picoband™
Reactive Species	Human, Rat
Description	Boster Bio Anti-AP2 alpha/TFAP2A Antibody Picoband™ catalog # PB9118. Tested in WB applications. This antibody reacts with Human, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .
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	P05549

### Technical Details

Immunogen	E.coli-derived human AP2 alpha recombinant protein (Position: M1-G166). Human AP2 alpha shares 98% amino acid (aa) sequence identity with both mouse and rat AP2 alpha.
Predicted Reactive Species	Bovine, Horse, Monkey, Rabbit
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

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

## Anti-AP2 alpha/TFAP2A Antibody Picoband™ (PB9118) Images



Figure 1. Western blot analysis of AP2 alpha using anti-AP2 alpha antibody (PB9118). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant human AP2A protein 0.5 ng. 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-AP2 alpha antigen affinity purified polyclonal antibody (Catalog # PB9118) 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 AP2 alpha at approximately 38 kDa. The expected band size for AP2 alpha is at 38 kDa.



Figure 2. Western blot analysis of AP2 alpha using anti-AP2 alpha antibody (PB9118). 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 spleen 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-AP2 alpha antigen affinity purified polyclonal antibody (Catalog # PB9118) 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 AP2 alpha at approximately 48 kDa. The expected band size for AP2 alpha is at 48 kDa.

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