

Anti-PPAR alpha/PPARA Antibody Picoband®

Catalog Number: A00600-2

About PPARA

Peroxisome proliferator-activated receptor alpha(PPAR-alpha), also known as NR1C1(nuclear receptor subfamily 1, group C, member 1), is a nuclear receptor protein that in humans is encoded by the PPARA gene. PPARA gene spans 83.7 kb and contains 8 exons. And the PPAR gene is mapped to chromosome 22q12-q13.1. Sher et al.(1993) cloned a cDNA for human peroxisome proliferator-activated receptor from a human liver cDNA library. The PPAR cDNA exhibited 85% and 91% DNA and deduced amino acid sequence identity, respectively, with mouse PPAR. PPAR-alpha is a transcription factor and a major regulator of lipid metabolism in the liver.

Overview

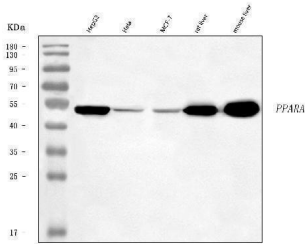
Product Name	Anti-PPAR alpha/PPARA Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PPAR alpha/PPARA Antibody Picoband® catalog # A00600-2. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this 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	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q07869

Technical Details

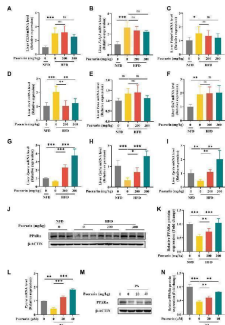
Immunogen	E.coli-derived human PPAR alpha/PPARA recombinant protein (Position: M1-L426).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

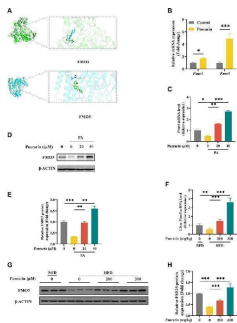
Anti-PPAR alpha/PPARA Antibody Picoband® (A00600-2) Images



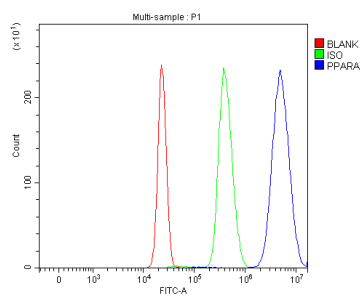
Western blot analysis of PPAR alpha/PPARA using anti-PPAR alpha/PPARA antibody (A00600-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HepG2 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: rat liver tissue lysates, Lane 5: mouse liver 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-PPAR alpha/PPARA antigen affinity purified polyclonal antibody (Catalog # A00600-2) 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 PPAR alpha/PPARA at approximately 52 kDa. The expected band size for PPAR alpha/PPARA is at 52 kDa.



Puerarin regulates hepatic fatty acid metabolism. (A-I) qRT-PCR detected the expressions of Cd36 , Fabp1 , Fabp4 , Acc1 , Fasn , Scd1 , Ppar-alpha , Cpt1alpha , and Pgc1alpha in each group of livers. (J-K) The expression of PPARalpha in liver was detected by Western blotting and q-PCR. (L-N) The expression of PPARalpha in AML-12 cells treated with puerarin (0, 20, and 40 uM) and PA (500 uM) was detected by Western blotting and q-PCR. * means $p < 0.05$, ** means $p < 0.01$, ***means $p < 0.001$. NFD, normal fat diet; HFD, high-fat diet; HFD200, high-fat diet with puerarin (200 mg/kg/day) intervention; HFD300, high-fat diet with puerarin (300 mg/kg/day) intervention. Index in PubMed under a CC BY license. PMID: 39055493



FMO5/PPAR-alpha signaling pathway is involved in puerarin-regulated lipid metabolism. (A) Molecular interaction of puerarin in the catalytic site of FMO3/FMO5; (B) qRT-PCR detected the expressions of Fmo3/Fmo5 in each group of livers; (C-E) The expression of FMO5 in AML-12 cells which were treated by puerarin (0, 20, and 40 uM) and PA (500 uM) was detected by Western blotting and q-PCR. (F) qRT-PCR and Western blotting detected the expressions of FMO5 in liver. (G-H) FMO5 protein expression in liver was detected by Western blotting and quantification with ImageJ. * means $p < 0.05$, ** means $p < 0.01$, ***means $p < 0.001$. NFD, normal fat diet; HFD, high-fat diet; HFD200, high-fat diet with puerarin (200 mg/kg/day) intervention; HFD300, high-fat diet with puerarin (300 mg/kg/day) intervention. Index in PubMed under a CC BY license. PMID: 39055493



Flow Cytometry analysis of HepG2 cells using anti-PPAR alpha/PPARA antibody (A00600-2). Overlay histogram showing HepG2 cells stained with A00600-2 (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-PPAR alpha/PPARA Antibody (A00600-2, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight® 488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-PPAR alpha/PPARA Antibody

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