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antibody and ELISA experts

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Anti-IL18 Antibody Picoband™

Catalog Number: A00124-1

About Il18

Interleukin-18 also known as IL18 is a protein which in humans is encoded by the IL18 gene. The protein encoded by this gene is a proinflammatory cytokine.IL-18 is a cytokine produced by macrophages and other cells that belongs to the IL-1 superfamily. IL-18 works by binding to the interleukin-18 receptor, and together with IL-12 it induces cell-mediated immunity following infection with microbial products like lipopolysaccharide (LPS). After stimulation with IL-18, natural killer (NK) cells and certain T cells release another important cytokine called interferon-gamma (IFN-gamma) or type II interferon that plays an important role in activating the macrophages or other cells.The combination of this cytokine and IL12 has been shown to inhibit IL4 dependent IgE and IgG1 production, and enhance IgG2a production in B cells. IL-18 binding protein (IL18BP) can specifically interact with this cytokine, and thus negatively regulate its biological activity. The human interleukin 18 gene IL18 maps to 11q22.2-q22.3, closely linked to the DRD2 gene locus and distinct from mapped IDDM loci.

Overview

Product Name	Anti-IL18 Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-IL18 Antibody Picoband™ catalog # A00124-1. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Mouse, Rat.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
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	P70380

Technical Details

Immunogen	E.coli-derived mouse IL18 recombinant protein (Position: N36-N177).
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

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Form	Lyophilized
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, 0.1-0.25ug/ml, Mouse, Rat Flow Cytometry(Fixed), 1-3ug/1x10^6 cells, Mouse Direct ELISA, 0.1-0.5ug/ml, Mouse, Rat

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Anti-IL18 Antibody Picoband™ (A00124-1) Images

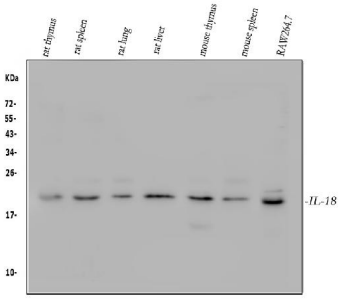

Figure 1. Western blot analysis of IL18 using anti-IL18 antibody (A00124-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: rat thymus tissue lysates,
Lane 2: rat spleen tissue lysates,
Lane 3: rat lung tissue lysates,
Lane 4: rat liver tissue lysates,
Lane 5: mouse thymus tissue lysates,
Lane 6: mouse spleen tissue lysates,
Lane 7: mouse RAW264.7 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-IL18 antigen affinity purified polyclonal antibody (Catalog # A00124-1) 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 IL18 at approximately 22 kDa. The expected band size for IL18 is at 22 kDa.

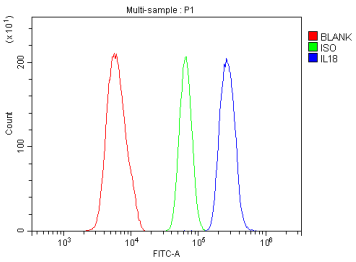

Figure 2. Flow Cytometry analysis of ANA-1 cells using anti-IL18 antibody (A00124-1).
Overlay histogram showing ANA-1 cells stained with A00124-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-IL18 Antibody (A00124-1, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

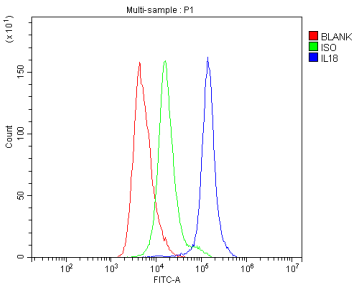

Figure 3. Flow Cytometry analysis of mouse spleen tissues using anti-IL18 antibody (A00124-1).
Overlay histogram showing mouse spleen tissues stained with A00124-1 (Blue line). The tissues were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-IL18 Antibody (A00124-1, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions.

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Unlabelled sample (Red line) was also used as a control.

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