BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Interleukin-18 IL18 Antibody Picoband®

Catalog Number: PA1342

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.

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Overview

Product Name	Anti-Interleukin-18 IL18 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Interleukin-18 IL18 Antibody catalog # PA1342. Tested in WB applications. This antibody reacts with Human. 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	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. *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	Q14116

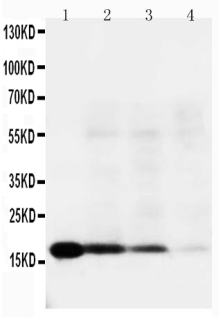
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Technical Details

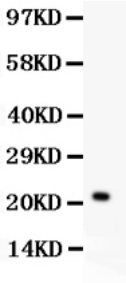
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of Human IL18.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human

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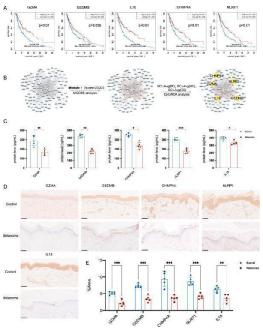
Anti-Interleukin-18 IL18 Antibody Picoband® (PA1342) Images



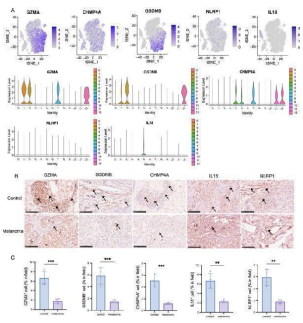
Anti-IL-18 antibody, PA1342, Western blottingLane 1: Recombinant Human IL-18 Protein 10ngLane 2: Recombinant Human IL-18 Protein 5ngLane 3: Recombinant Human IL-18 Protein 2.5ng Lane 4: RAJI Cell Lysate



Western blot analysis of IL-18 expression in HELA whole cell lysates (lane 1). IL-18 at 22KD was detected using rabbit anti-IL-18 Antigen Affinity purified polyclonal antibody (Catalog # PA1342) at 0.5 ug/mL. The blot was developed using chemiluminescence (ECL) method (Catalog # EK1002).



Melanoma specimens reduce PRGs positive cells in epidermal clinically. A Overall survival analysis based on K-M was calculated to identify the potential PRGs clinically. B PPI via MCODE and CytoNCA algorithm was established, in which PRGs were screened out as central protein functioning in melanoma deficiency. C GZMA, GSDMB, CHMP4A, NLRP1, and IL18 protein expression of melanoma and control patients detected by ELISA. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$, $n = 5$, compared with the normal group. D Representative IHC stanning of GZMA + , GSMDB + , CHMP4A + , NLRP1 + , and IL18 + in melanoma specimens from the clinic. Scale bar = 100 um, $n = 5$ samples per group. E The quantification of PRGs protein in epidermal areas, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$, compared with the control group. Index in PubMed under a CC BY license. PMID: 37620327



PRGs were primarily expressed in immune cells. A Feature plots depicting the expression of key pyroptosis, violin plots were also displayed to determine the cell type. B Representative IHC stanning of GZMA + , GSMDB + , CHMP4A + , NLRP1 + , and IL18 + in melanoma specimens, especially in lymphocyte areas. Scale bar = 100 um, $n = 4$ samples per group. C The quantification of PRGs protein in dermal areas, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$, compared with the control group. Index in PubMed under a CC BY license. PMID: 37620327

5 Publications Citing This Product

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1. PubMed ID: 25049723, Si Lf, Zhang Sy, Gao Cs, Chen Sl, Zhao J, Cheng Xc. Asian-Australas J Anim Sci. 2013 Oct;26(10):1399-405. Doi: 10.5713/Ajas.2013.13101. Effects Of Ifn-?? On Il-18 Expression In Pregnant Rats And Pregnancy Outcomes.

2. PubMed ID: 25049723, Si Lf, Zhang Sy, Gao Cs, Chen Sl, Zhao J, Cheng Xc. Asian-Australas J Anim Sci. 2013 Oct;26(10):1399-405. Doi: 10.5713/Ajas.2013.13101. Effects Of Ifn-?? On Il-18 Expression In Pregnant Rats And Pregnancy Outcomes.

3. PubMed ID: 21920610, Wang Y, Zhang X, Zhang Y, Xu H, Fang G. J Reprod Immunol. 2011 Dec;92(1-2):45-53. Doi: 10.1016/J.Jri.2011.07.002. Epub 2011 Sep 13. Expression And Localization Of Il-18 In The Hypothalamic-Pituitary-Ovarian Axis Of Non-Pregnant, Pregnant, And Abor...

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