BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-IL-1 Beta/Il1b Antibody Picoband®

Catalog Number: A00101-4

About Il1b

Interleukin-1beta (IL-1beta) is a potent stimulator of bone resorption whose gene is mapped to 2q14, and has been implicated in the pathogenesis of high bone turnover and osteoporosis. IL-1beta, a prominent microglia-derived cytokine, caused oligodendrocyte death in coculture with astrocytes and microglia, but not in pure culture of oligodendrocytes alone. It also can cause nuclear export of a specific NCOR corepressor complex, resulting in derepression of a specific subset of nuclear factor-kappa-B (NFKB)-regulated genes. Furthermore, Microenvironmental IL-1beta and, to a lesser extent, IL-1alpha are required for in vivo angiogenesis and invasiveness of different tumor cells. Additional, the cooperation of IL-1beta and PDGFB induces contractile-to-synthetic phenotype modulation of human aortic smooth muscle cells in culture. Moreover, the association with disease may be explained by the biologic properties of IL-1beta, which is an important proinflammatory cytokine and a powerful inhibitor of gastric acid secretion.

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Overview

Product Name	Anti-IL-1 Beta/Il1b Antibody Picoband®
Reactive Species	Mouse
Description	Boster Bio Anti-IL-1 Beta/Il1b Antibody Picoband® catalog # A00101-4. Tested in ELISA, WB applications. This antibody reacts with Mouse. 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
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	P10749

Technical Details

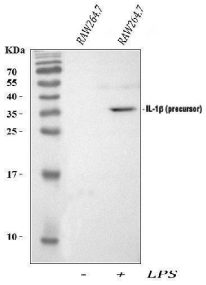
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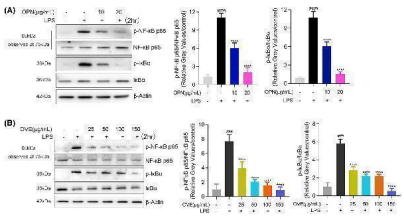
Immunogen	E.coli-derived mouse IL-1 Beta/Il1b recombinant protein (Position: V118-S269).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 μg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Mouse ELISA, 0.1-0.5 ug/ml, -

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Anti-IL-1 Beta/Il1b Antibody Picoband® (A00101-4) Images



Western blot analysis of IL-1 Beta/Il1b using anti-IL-1 Beta/Il1b antibody (A00101-4). 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: mouse RAW264.7 whole cell lysates, Lane 2: 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-IL-1 Beta/Il1b antigen affinity purified polyclonal antibody (Catalog # A00101-4) 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 IL-1 Beta/Il1b at approximately 36 kDa. The expected band size for IL-1 Beta/Il1b is at 31 kDa.



Effects of OPN and OVE on activation of NF-κB pathways in LPS-stimulated RAW264.7 cells. Cells were pretreated with OVE or OPN at different concentrations for 1 h. Expression levels of p-NF-κB p65, NF-κB p65, p-IκBalpha, and IκBalpha were detected after 24 h of LPS treatment. (A) OPN treatment. (B) OVE treatment. All experiments were carried out in triplicates and data are presented as means ± SDs; one-way ANOVA analysis was adopted for multiple comparisons; ###P < 0.001, ####P < 0.0001, compared to the untreated control group; ****P < 0.0001, compared to the LPS control group. Index in PubMed under a CC BY license. PMID: 39455284

Anti-IL-1 Beta/Il1b Antibody

For Research Use Only. Not for use in diagnostic procedures.