BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-IL6 Antibody Picoband®

Catalog Number: PB9005

About Il6

Interleukin-6 (IL-6) is a protein that in humans is encoded by the IL6 gene. IL-6 is an interleukin that acts as both a pro-inflammatory and anti-inflammatory cytokine. It is secreted by T cells and macrophages to stimulate immune response to trauma, especially burns or other tissue damage leading to inflammation. IL-6 is one of the most important mediators of fever and of the acute phase response. IL-6 is also essential for hybridoma growth and is found in many supplemental cloning media such as briclone. Bowcock et al. (1988) assigned the IL6 gene to chromosome 7p21. By in situ hybridization and Southern blot analysis of mouse-human hybrid cell lines, Sutherland et al. (1988) mapped the IL-6 gene to chromosome 7p15.

Overview

Product Name	Anti-IL6 Antibody Picoband®
Reactive Species	Rat
Description	Boster Bio Anti-IL6 Antibody Picoband® catalog # PB9005. Tested in WB applications. This antibody reacts with 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	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg 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	P20607

Technical Details

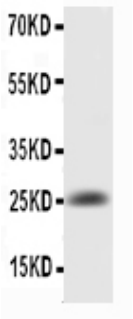
Immunogen	E.coli-derived rat IL-6 recombinant protein (Position: F25-T211). Rat IL-6 shares 86% amino acid (aa) sequence identity with mouse IL-6.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

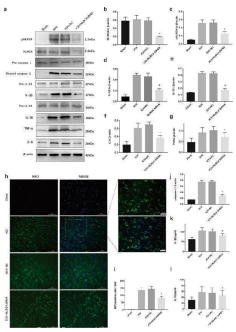
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Rat

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

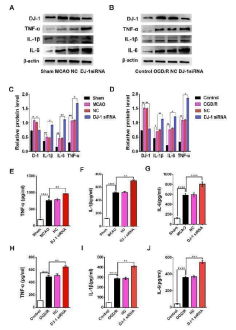
Anti-IL6 Antibody Picoband® (PB9005) Images



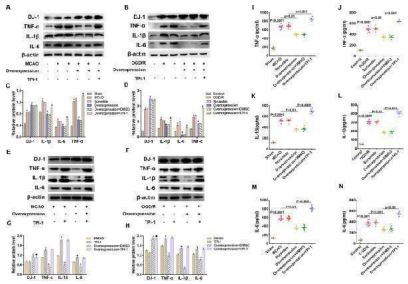
Western blot analysis of IL6 using anti-IL6 antibody (PB9005). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant rat IL6 protein 0.5 ng. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 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-IL6 antigen affinity purified polyclonal antibody (Catalog # PB9005) 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 IL6 at approximately 25 kDa. The expected band size for IL6 is at 25 kDa.



Inflammation response were reduced by NLRC4 siRNA after ICH. a – g , j Western blot assay to detect NLRC4, pNLRC4, Pro-IL-1beta, IL-1beta, Pro-caspase-1, caspase-1, Pro-IL-18, IL-18, TNF-alpha, and IL-6, (k , l) ELISA for IL–18 and IL–1beta (h , i) Immunostaining for MPO-positive cells (×400 and ×200) at peri-hematoma area in sham, ICH, negative control siRNA, and NLRC4 siRNA groups at 72 h after ICH (six rats for each group). * P



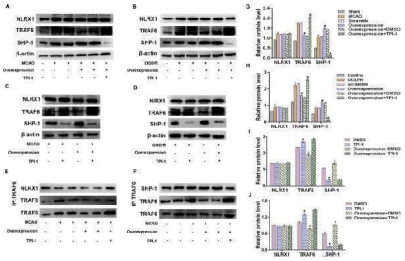
DJ-1 interference increased the expression of TNF-alpha, IL-1beta, and IL-6 after cerebral I/R injury. a and c Western blot detecting DJ-1 and the cytokines TNF-alpha, IL-1beta, and IL-6 in rats. b , d Western blot detecting DJ-1 and the cytokines TNF-alpha, IL-1beta, and IL-6 in astrocytes. e–g Quantification of TNF-alpha, IL-1beta, and IL-6 in rats by ELISA. h-j Quantification of TNF-alpha, IL-1beta, and IL-6 in astrocytes by ELISA. The data are expressed as the mean ± SEM. * p



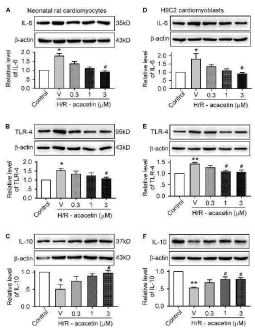
DJ-1 inhibited the expression of TNF-alpha, IL-1beta, and IL-6 after cerebral I/R injury via SHP-1. a , c After virus and TPI-1 were used to overexpress DJ-1 and inhibit SHP-1, respectively, Western blotting was used to detect the cytokines IL-1beta, IL-6, and TNF-alpha in rats. b , d After virus and TPI-1 were used to overexpress DJ-1 and inhibit SHP-1, respectively, Western blotting was used to detect the cytokines IL-1beta, IL-6, and TNF-alpha in astrocytes. e , g After treatment with an SHP-1 inhibitor, Western blotting was used to detect the cytokines IL-1beta, IL-6, and TNF-alpha in rats. f , h After treatment with an SHP-1 inhibitor, Western blotting was used to detect the cytokines IL-1beta,

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

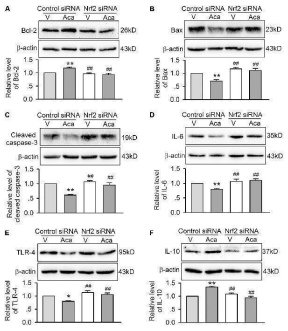
IL-6, and TNF-alpha in astrocytes. i , k , m Quantification of TNF-alpha, IL-1beta, and IL-6 in rats by ELISA. j , l , n Quantification of TNF-alpha, IL-1beta, and IL-6 in astrocytes by ELISA. The data are expressed as the mean ± SEM. * p



DJ-1 regulated the disassociation of NLRX1 from TRAF6 after cerebral I/R injury via SHP-1. a , g After virus and TPI-1 were used to overexpress DJ-1 and inhibit SHP-1, respectively, Western blotting was used to detect NLRX1, TRAF6, and SHP-1 in rats. b , h After virus and TPI-1 were used to overexpress DJ-1 and inhibit SHP-1, respectively, Western blotting was used to detect NLRX1, TRAF6, and SHP-1 in astrocytes. c , i After treatment with an SHP-1 inhibitor, Western blotting was used to detect the cytokines IL-1beta, IL-6, and TNF-alpha in rats. d , j After treatment with an SHP-1 inhibitor, Western blotting was used to detect the cytokines IL-1beta, IL-6, and TNF-alpha in astrocytes. e Immunoprecipitation and immunoblot analyses of NLRX1-TRAF6 in rats. f Immunoprecipitation and immunoblot analyses of SHP-1-TRAF6 in rats. The data are expressed as the mean ± SEM. * p



Effects of acacetin on inflammation-related cytokines in cells with hypoxia/reoxygenation exposure. Western blots and mean relative level of IL-6 (A) , TLR-4 (B) , IL-10 (C) in neonatal rat cardiomyocytes without (control) or with hypoxia/reoxygenation (H/R) exposure in the absence (V, vehicle) or presence of 0.3, 1, or 3 uM acacetin. Western blots and mean relative level of IL-6 (D) , TLR-4 (E) , IL-10 (F) in H9C2 cardiomyoblasts with the treatment used in (A–C) . Data were expressed as mean ± SEM and analyzed by one-way ANOVA followed by the Bonferroni-test (n = 5 individual experiments, ∗ P < 0.05, ∗∗ P < 0.01 vs. control; # P < 0.05 vs. hypoxia/reoxygenation alone).Index in PubMed under a CC BY license. PMID: 29867499



Effects of silencing Nrf2 on apoptosis- and inflammation-related proteins in cells with hypoxia/reoxygenation insult. Western blots and relative levels of Bcl-2 (A) , Bax (B) , and cleaved caspase-1 (C) in H9C2 cardiomyoblasts transfected with control siRNA or Nrf2 siRNA and subjected to hypoxia/reoxygenation insult in the absence (V, vehicle) or presence of 3 uM acacetin (Aca). Western blots and relative levels of IL-6 (D) , TRL-4 (E) , and IL-10 (F) in H9C2 cardiomyoblasts with the treatment used in (A–C) . Data were expressed as mean ± SEM and analyzed by one-way ANOVA followed by Bonferroni-test (n = 5 individual experiments, ∗ P < 0.05, ∗∗ P < 0.01 vs. vehicle of control siRNA; ## P < 0.01 vs. control siRNA with acacetin).Index in PubMed under a CC BY license. PMID: 29867499

34 Publications Citing This Product

1. PubMed ID: 33316740, Tan J,Luo J,Meng C,Jiang N,Cao J,Zhao J. Syringin exerts neuroprotective effects in a rat model of cerebral ischemia through the FOXO3a/NF-kappaB pathway. Int Immunopharmacol.2020 Dec 11;90:107268.doi:10.1016/j. intimp.2020.107268.Epub ahead of print.PMID:333

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

2. PubMed ID: 28239811, The expression and significance of IL-6, IFN-%u03B3, SM22%u03B1, and MMP-2 in rat model of aortic dissection

3. PubMed ID: 29862173, Transfection with CXCR4 potentiates homing of mesenchymal stem cells in vitro and therapy of diabetic retinopathy in vivo

Visit bosterbio.com/anti-il-6-picoband-trade-antibody-pb9005-boster.html to see all 34 publications.

Anti-IL6 Antibody

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