BOSTER BIOLOGICAL TECHNOLOGY
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Anti-STAT4 Antibody Picoband®

Catalog Number: PA1692

About STAT4

STAT4 is a human gene. The protein encoded by this gene is a member of the STAT protein family of transcription factors. STAT4 is mapped to chromosome 2q32.2-q32.3 by fluorescence in situ hybridization. STAT4 is phosphorylated in response to interleukin-12 and is essential for IL12 signal transduction. Transactivation, electrophoretic mobility shift, and RNA interference analyses showed that Ikaros bound to the STAT4 promoter and was involved in regulation of STAT4 in human T cells.

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Overview

Product Name	Anti-STAT4 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-STAT4 Antibody catalog # PA1692. Tested in 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	WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	Q14765

Technical Details

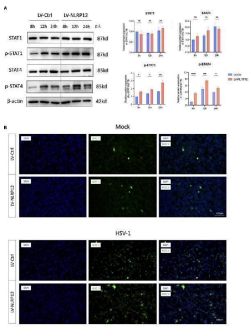
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human STAT4, identical to the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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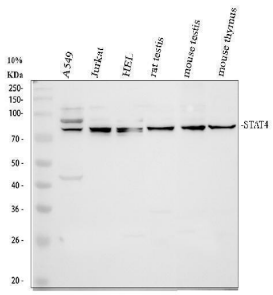
	blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat

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Anti-STAT4 Antibody Picoband® (PA1692) Images



NLRP12 enhances antiviral functions through IL-18 downstream JAK-STAT signaling. (A) Protein levels of STAT1, p-STAT1, STAT4, pSTAT4 were assessed at 8h, 12h and 24h post-infection in both groups. Western blot bands were normalized to beta-actin and compared against controls (n=3 per group). (B) Immunofluorescence images demonstrating MHC II + cell staining. All of the data are representative of at least three independent experiments. Data are presented as the mean ± SEM. Statistical differences were determined using two-way ANOVA (A) . ns, not significnat, *P <0.05, ***P <0.001, ****P <0.0001.Index in PubMed under a CC BY license. PMID: 39119293



Western blot analysis of STAT4 using anti-STAT4 antibody (PA1692). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human HEL whole cell lysates, Lane 4: rat testis tissue lysates, Lane 5: mouse testis tissue lysates, Lane 6: mouse thymus 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-STAT4 antigen affinity purified polyclonal antibody (PA1692) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for STAT4 at approximately 86 kDa. The expected band size for STAT4 is at 86 kDa.

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