

Anti-Interferon gamma/IFNG Antibody Picoband®

Catalog Number: A00393-3

About IFNG

Interferon-gamma (IFN-gamma) is an inflammatory cytokine that has been implicated in the development of fibrosis in inflamed tissues. The production of IFN-gamma, which is under genetic control, can influence the development of fibrosis in lung allografts. IFN-gamma is also produced by natural killer (NK) cells and most prominently by CD8 cytotoxic T cells, and is vital for the control of microbial pathogens. Interferon gamma is believed to be crucial for host defence against many infections. Genetically determined variability in IFN-gamma and expression might be important for the development of tuberculosis. IFN-gamma activates human macrophage oxidative metabolism and antimicrobial activity. In addition to having antiviral activity, IFN-gamma has important immunoregulatory functions. IFN-gamma plays an important role in the control of neointima proliferation.

Overview

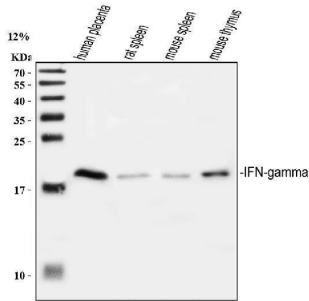
Product Name	Anti-Interferon gamma/IFNG Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Interferon gamma/IFNG Antibody Picoband® catalog # A00393-3. Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this 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	IHC, WB, ELISA (Cap)
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
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	P01579

Technical Details

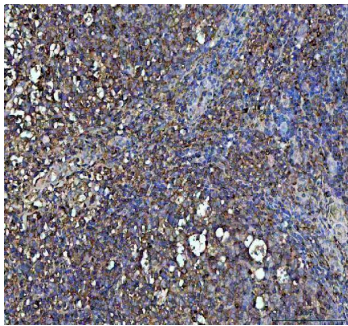
Immunogen	E. coli-derived human Interferon gamma recombinant protein (Position: Q24-G161).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross 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 Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml ELISA(Cap), 1-5ug/ml

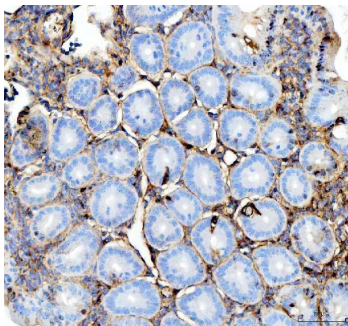
Anti-Interferon gamma/IFNG Antibody Picoband® (A00393-3) Images



Western blot analysis of IFNG using anti-IFNG antibody (A00393-3). 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: human placenta tissue lysates, Lane 2: rat spleen tissue lysates, Lane 3: mouse spleen tissue lysates, Lane 4: 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-IFNG antigen affinity purified polyclonal antibody (Catalog # A00393-3) 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 IFNG at approximately 19 kDa. The expected band size for IFNG is at 19 kDa.

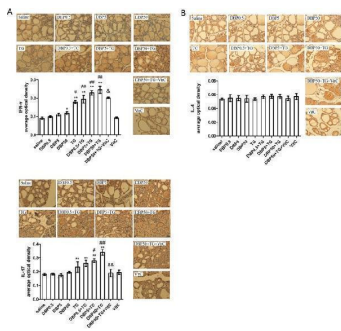


IHC analysis of IFNG using anti-IFNG antibody (A00393-3). IFNG was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-IFNG Antibody (A00393-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

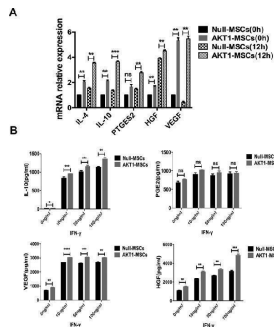


IHC analysis of IFNG using anti-IFNG antibody (A00393-3). IFNG was detected in a paraffin-embedded section of mouse colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-IFNG Antibody (A00393-3) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

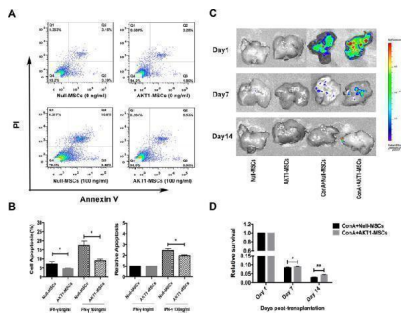
Th1/Th2 imbalance and Th17 immune response. (A) Immunohistochemistry and average optical density for IFN-gamma, F DBP = 5.596 (p = 0.002), F TG = 142.67 (p = 0.000), F DBP*TG = 1.114 (p = 0.351). (B)



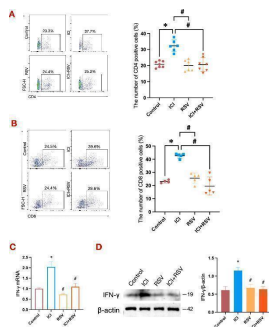
Immunohistochemistry and average optical density for IL-4, F DBP = 0.537 (p = 0.659), F TG = 1.419 (p = 0.24), F DBP**TG* = 0.168 (p = 0.917). (C) Immunohistochemistry and average optical density for IL-17 F DBP = 6.966 (p = 0.001), F TG = 93.46 (p = 0.000), F DBP**TG* = 4.136 (p = 0.011). Magnification = ×40. *p<0.05, **p<0.01, compared with the saline group; # p<0.05, ## p<0.01, compared with the TG group; & p<0.05, && p<0.01, compared with the DBP50 + TG group. Index in PubMed under a CC BY license. PMID: 29133889



AKT1 over-expression promoted cytokines release by MSCs. a The mRNA expression of IL-4, IL-10, PTGES2, HGF and VEGF in Null-MSCs and AKT1-MSCs were measured by qRT-PCR under routine culture condition and IFN-gamma stimulation condition. The gene transcript levels were normalized to those of GAPDH and set to 1 in Null-MSCs untreated group. b ELISA analysis for detecting IL-10, PGE2, VEGF and HGF protein expression in MSCs culture supernatant after IFN-gamma stimulation for 24h. The data are presented as the means ± SD of three independent experiments. * P < 0.05, ** P < 0.01, *** P < 0.001, **** P < 0.0001 Index in PubMed under a CC BY license. PMID: 31889917



Cytoprotective effect of AKT1 over-expression on MSCs. a Representative flow cytometry scatter plots depicting the percentage of apoptotic cells in Null-MSCs and AKT1-MSCs group under routine culture condition and IFN-gamma stimulation condition. b The percentage of Annexin V-positive cells in each group is indicated in a bar chart (left). The ratio of Annexin V-positive cells under IFN-gamma stimulation condition relative to untreated controls is indicated in a bar chart (right). The data are presented as the means ± SD of three independent experiments. * P < 0.05, ** P < 0.01, *** P < 0.001, **** P < 0.0001. c Liver fluorescence images on day1, day7 and day14 after transplanting Null-MSCs or AKT1-MSCs into mice with or without Con A administration. d Relative quantification analysis of Null-MSCs and AKT-MSCs on day7 and day14 in ConA administration group. Fluorescence signals were quantified by ROI analysis using Living Image software 4.2 and normalized to those of Day1 in each group Index in PubMed under a CC BY license. PMID: 31889917



Effects of anti-PD-1 and RSV on T cells and IFN-gamma in testicular tissue. Percentages of testicular T cells, including CD4 + T cells (A) and CD8 + T cells (B) , were analyzed by flow cytometry in tumor-bearing mice after the final treatment (n = 4 at least, in each group). The mRNA level of IFN-gamma in the testis was analyzed by qRT-qPCR (C) and the protein level of IFN-gamma was analyzed by western blot (D) (n = 3 per group). Data are presented as means ± SEM. *P < 0.05 vs. Control group; #P < 0.05 vs. ICI group. Index in PubMed under a CC BY license. PMID: 40145083

10 Publications Citing This Product

1. PubMed ID: PMID:25337228, Human interleukin-10 gene inhibits acute rejection by triggering apoptosis in allograft vascular transplantation
2. PubMed ID: PMID:28239811, The expression and significance of IL-6, IFN-gamma, SM22alpha, and MMP-2 in rat model of aortic dissection.
3. PubMed ID: 10.1111/j.1582-4934.2009.00806.x, Anti- γ arthritis activity of cationic materials

Visit bosterbio.com/anti-interferon-gamma-antibody-a00393-3-boster.html to see all 10 publications.

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Anti-Interferon gamma/IFNG Antibody

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