BOSTER BIOLOGICAL TECHNOLOGY
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Anti-GATA3 Antibody Picoband®

Catalog Number: A00593-1

About GATA3

Trans-acting T-cell-specific transcription factor GATA-3, also named HDR or GATA3, is a protein that in humans is encoded by the GATA3 gene. It is mapped to 10p14. This gene belongs to the GATA family of transcription factors. It regulates luminal epithelial cell differentiation in the mammary gland. The protein contains two GATA-type zinc fingers, it is an important regulator of T cell development and plays an important role in endothelial cell biology. GATA3 has been shown to promote the secretion of IL-4, IL-5, and IL-13 from Th2 cells, and induces the differentiation of Th0 cells towards this T cell subtype while suppressing their differentiation towards Th1 cells.

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Overview

Product Name	Anti-GATA3 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-GATA3 Antibody Picoband® catalog # A00593-1. Tested in Flow Cytometry, IF, IHC, ICC, 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	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
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	P23771

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human GATA3, which shares 86.4% and 90.9% amino acid (aa) sequence identity with mouse and rat GATA3, respectively.

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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) and ICC.
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, 0.25-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 4ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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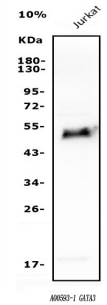
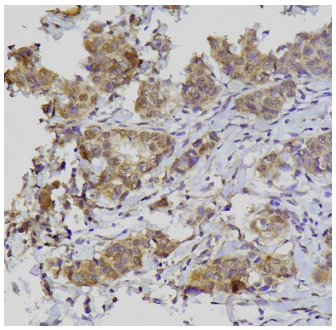
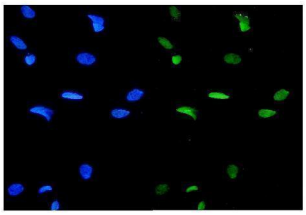
Anti-GATA3 Antibody Picoband® (A00593-1) Images



Western blot analysis of GATA3 using anti-GATA3 antibody (A00593-1). 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 50ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-GATA3 antigen affinity purified polyclonal antibody (Catalog # A00593-1) 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 1:10000 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 GATA3 at approximately 50KD. The expected band size for GATA3 is at 50KD.



IHC analysis of GATA3 using anti-GATA3 antibody (A00593-1). GATA3 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GATA3 Antibody (A00593-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IF analysis of GATA3 using anti-GATA3 antibody (A00593-1). GATA3 was detected in immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 4ug/mL rabbit anti-GATA3 Antibody (A00593-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Flow Cytometry analysis of 293T cells using anti-GATA3 antibody (A00593-1).Overlay histogram showing 293T cells stained with A00593-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were

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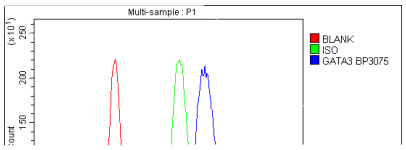

blocked with 10% normal goat serum. And then incubated with rabbit anti-GATA3 Antibody (A00593-1,1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-GATA3 Antibody

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