

## Anti-GATA2 Antibody Picoband™

Catalog Number: A01415-1

### About GATA2

GATA2 (GATA binding protein 2) is a human gene which makes a protein called GATA binding protein 2 - a transcription factor. The GATA family of transcription factors, which contain zinc fingers in their DNA binding domain, have emerged as candidate regulators of gene expression in hematopoietic cells. Ciciotte et al. (1997) mapped the mouse Gata2 gene to chromosome 6 by study of DNA from an interspecific backcross panel. They pointed out that the human gene had been mapped to chromosome 3 by Dorfman et al. (1992) using DNA from a panel of 12 rodent/human hybrids containing various human chromosomes and applying Southern blot analysis. By exon trapping using a PAC contig spanning a breakpoint region associated with myeloid leukemia, Wieser et al. (2000) mapped the GATA2 gene to chromosome 3q21. GATA2 is transcribed from telomere to centromere. GATA2 is expressed in hematopoietic progenitors, including early erythroid cells, mast cells, and megakaryocytes, and also in nonhematopoietic embryonic stem cells.

### Overview

Product Name	Anti-GATA2 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-GATA2 Antibody Picoband™ catalog # A01415-1. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IF, 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	P23769

### Technical Details

Immunogen	E.coli-derived human GATA2 recombinant protein (Position: D23-S288).
Predicted Reactive Species	Human
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 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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.25-0.5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry, 1-3ug/1x10<sup>6</sup> cells, Human Direct ELISA, 0.1-0.5ug/ml, Human</p>

## Anti-GATA2 Antibody Picoband™ (A01415-1) Images

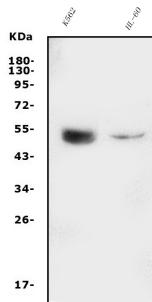


Figure 1. Western blot analysis of GATA2 using anti-GATA2 antibody (A01415-1).

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 K562 whole cell lysates,  
Lane 2: human HL-60 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-GATA2 antigen affinity purified polyclonal antibody (Catalog # A01415-1) 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 1:5000 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 GATA2 at approximately 51KD. The expected band size for GATA2 is at 51KD.

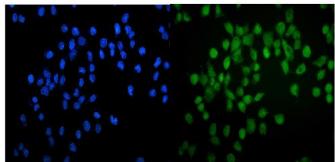


Figure 2. IF analysis of GATA2 using anti-GATA2 antibody (A01415-1).

GATA2 was detected in immunocytochemical section of A431 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 5ug/mL rabbit anti-GATA2 Antibody (A01415-1) 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.

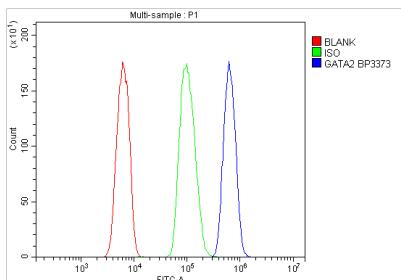


Figure 3. Flow Cytometry analysis of HL-60 cells using anti-GATA2 antibody (A01415-1).

Overlay histogram showing HL-60 cells stained with A01415-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GATA2 Antibody (A01415-1, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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