

Anti-IL2 Receptor gamma/IL2RG Antibody Picoband™

Catalog Number: A00308-1

About IL2RG

IL2RG (INTERLEUKIN 2 RECEPTOR, GAMMA), also known as Common gamma chain or CD132, is a cytokine receptor sub-unit that is common to the receptor complexes for at least six different interleukin receptors: IL-2, IL-4, IL-7, IL-9, IL-15 and interleukin-21 receptor. IL2RG is a member of the type I cytokine receptor family expressed on most lymphocyte (white blood cell) populations, and its gene is found on the X-chromosome of mammals. By fluorescence in situ hybridization and PCR amplification of somatic cell hybrid DNAs, The IL2RG gene is mapped to Xq13.1. The IL2RG gene contains 8 exons and spans approximately 4.2 kb. And the gamma chain is an indispensable component of the functional IL2 receptor. Lymphocytes expressing the common gamma chain can form functional receptors for these cytokine proteins, which transmit signals from one cell to another and direct programs of cellular differentiation. The sharing of the gamma subunit by several receptors explains why humans and mice that lack IL2 entirely show milder symptoms than those with IL2RG deficiency.

Overview

Product Name	Anti-IL2 Receptor gamma/IL2RG Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-IL2 Receptor gamma/IL2RG Antibody Picoband™ catalog # A00308-1. Tested in IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	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	P31785

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human IL2 Receptor gamma/IL2RG, which shares 78.9% amino acid (aa) sequence identity with both mouse and rat IL2 Receptor gamma/IL2RG.
Predicted Reactive Species	Chicken
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	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Human

Anti-IL2 Receptor gamma/IL2RG Antibody Picoband™ (A00308-1) Images

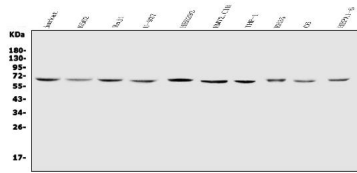


Figure 1. Western blot analysis of IL2 Receptor gamma/IL2RG using anti-IL2 Receptor gamma/IL2RG antibody (A00308-1).

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 30ug of sample under reducing conditions.

Lane 1: human Jurkat whole cell lysates,

Lane 2: human K562 whole cell lysates,

Lane 3: human Raji whole cell lysates,

Lane 4: human U-937 whole cell lysates,

Lane 5: human HEK293 whole cell lysates,

Lane 6: human HMY2.CIR whole cell lysates,

Lane 7: human THP-1 whole cell lysates,

Lane 8: rat RH-35 whole cell lysates,

Lane 9: rat C6 whole cell lysates,

Lane 10: mouse HEPA1-6 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-IL2 Receptor gamma/IL2RG antigen affinity purified polyclonal antibody (Catalog # A00308-1) 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 IL2 Receptor gamma/IL2RG at approximately 65KD. The expected band size for IL2 Receptor gamma/IL2RG is at 65KD.

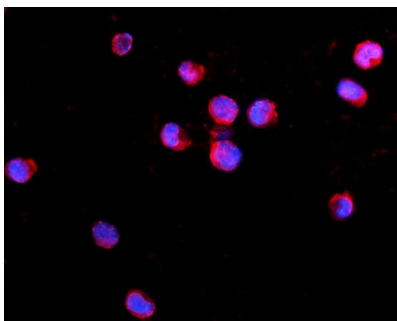


Figure 2. IF analysis of IL2 Receptor gamma/IL2RG using anti-IL2 Receptor gamma/IL2RG antibody (A00308-1).

IL2 Receptor gamma/IL2RG was detected in immunocytochemical section of K562 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-IL2 Receptor gamma/IL2RG Antibody (A00308-1) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) 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.

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