

Anti-IL-2 Picoband Antibody
Catalog # ABO10070**Specification**

Anti-IL-2 Picoband Antibody - Product Information

Application	WB
Primary Accession	P60568
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Interleukin-2(IL2) detection. Tested with WB, ELISA in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-IL-2 Picoband Antibody - Additional Information

Gene ID 3558

Other Names

Interleukin-2, IL-2, T-cell growth factor, TCGF, Aldesleukin, IL2

Calculated MW

17628 MW KDa

Application Details

ELISA , 0.1-0.5 µg/ml, Human, -
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Secreted.

Protein Name

Interleukin-2

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

E. coli-derived human IL-2 recombinant protein (Position: A21-T153). Human IL-2 shares 57.5% and 66.4% amino acid (aa) sequence identity with mouse and rat IL-2, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-IL-2 Picoband Antibody - Protein Information**Name** IL2**Function**

Cytokine produced by activated CD4-positive helper T-cells and to a lesser extent activated CD8-positive T-cells and natural killer (NK) cells that plays pivotal roles in the immune response and tolerance (PubMed: [6438535](http://www.uniprot.org/citations/6438535)). Binds to a receptor complex composed of either the high-affinity trimeric IL-2R (IL2RA/CD25, IL2RB/CD122 and IL2RG/CD132) or the low-affinity dimeric IL-2R (IL2RB and IL2RG) (PubMed: [16293754](http://www.uniprot.org/citations/16293754), PubMed: [16477002](http://www.uniprot.org/citations/16477002)). Interaction with the receptor leads to oligomerization and conformation changes in the IL-2R subunits resulting in downstream signaling starting with phosphorylation of JAK1 and JAK3 (PubMed: [7973659](http://www.uniprot.org/citations/7973659)). In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5 (PubMed: [8580378](http://www.uniprot.org/citations/8580378)). This process leads to activation of several pathways including STAT, phosphoinositide-3-kinase/PI3K and mitogen-activated protein kinase/MAPK pathways (PubMed: [25142963](http://www.uniprot.org/citations/25142963)). Functions as a T-cell growth factor and can increase NK-cell cytolytic activity as well (PubMed: [6608729](http://www.uniprot.org/citations/6608729)). Promotes strong proliferation of activated B-cells and subsequently immunoglobulin production (PubMed: [6438535](http://www.uniprot.org/citations/6438535)). Plays a pivotal role in regulating the adaptive immune system by controlling the survival and proliferation of regulatory T-cells, which are required for the maintenance of immune tolerance. Moreover, participates in the differentiation and homeostasis of effector T-cell subsets, including Th1, Th2, Th17 as well as memory CD8-positive T-cells.

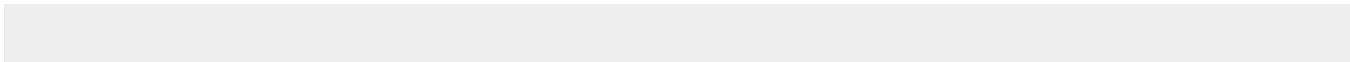
Cellular Location

Secreted.

Anti-IL-2 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-IL-2 Picoband Antibody - Images

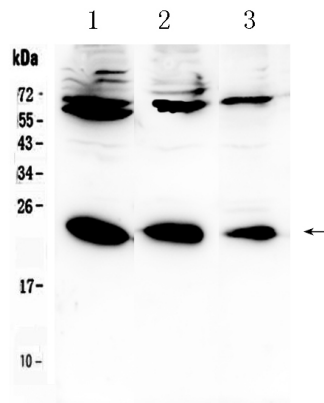


Figure 1. Western blot analysis of IL-2 using anti-IL-2 antibody (ABO10070). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: HELA whole Cell lysates, Lane 2: K562 whole Cell lysates, Lane 3: RAJI 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-IL-2 antigen affinity purified polyclonal antibody (Catalog # ABO10070) at 0.5 μ g/mL overnight at 4 $^{\circ}$ 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 with Tanon 5200 system. A specific band was detected for IL-2 at approximately 22KD. The expected band size for IL-2 is at 18KD.

Anti-IL-2 Picoband Antibody - Background

IL-2, Interleukin-2, formerly referred to as T-cell growth factor, is a powerfully immunoregulatory lymphokine that is produced by lectin-or antigen-activated T cells. In situ hybridization, the IL-2 gene is assigned to 4q26-q28. IL2 can act as a growth hormone for both B and T lymphocytes. It is useful in the study of the molecular nature of T-cell differentiation and, like interferons, augments natural killer cell activity.