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Anti-Human IL-2 (RABBIT) Antibody Peroxidase Conjugated

IL-2 Antibody Peroxidase Conjugated
Catalog # ASR4957

Specification

Anti-Human IL-2 (RABBIT) Antibody Peroxidase Conjugated - Product Information

Host	**Rabbit**
Conjugate	**Peroxidase (Horseradish)**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Polyclonal**
Application	**WB, IHC, E, I, LCI**
Application Note	**This purified antibody has been tested for use in western blotting. By western blot a band approximately 15 kDa in size corresponding to human IL-2 protein is expected in the appropriate cell lysate or extract. Specific conditions for reactivity should be optimized by the end user.**
Physical State	**Lyophilized**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**This purified antibody was prepared from whole rabbit serum produced by repeated immunizations with full length recombinant human IL-2 protein.**
Reconstitution Volume	**100 µL**
Reconstitution Buffer	**Restore with deionized water (or equivalent)**
Stabilizer	**10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free**
Preservative	**0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!**

Anti-Human IL-2 (RABBIT) Antibody Peroxidase Conjugated - Additional Information

Gene ID 3558

Other Names
3558

Purity
This product is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. This purified antibody has been heated to 56°C for 30 minutes. In ELISA and other immunoreactive assays, this antibody will recognize both native and recombinant human IL-2 in cell supernatants and certain body fluids. A control of similarly diluted normal rabbit IgG is recommended.

Storage Condition

Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Human IL-2 (RABBIT) Antibody Peroxidase Conjugated - Protein Information

Name IL2

Function
Cytokine produced by activated CD4-positive helper T-cells and to a lesser extend activated CD8-positive T-cells and natural killer (NK) cells that plays pivotal roles in the immune response and tolerance (PubMed: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, PubMed: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). In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5 (PubMed:8580378). This process leads to activation of several pathways including STAT, phosphoinositide-3- kinase/PI3K and mitogen-activated protein kinase/MAPK pathways (PubMed:25142963). Functions as a T-cell growth factor and can increase NK-cell cytolytic activity as well (PubMed:6608729). Promotes strong proliferation of activated B-cells and subsequently immunoglobulin production (PubMed: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-Human IL-2 (RABBIT) Antibody Peroxidase Conjugated - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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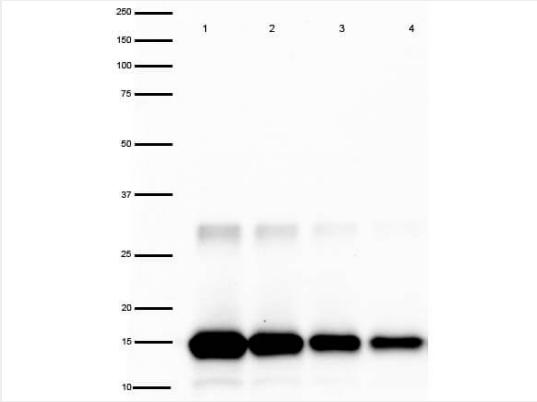
Anti-Human IL-2 (RABBIT) Antibody Peroxidase Conjugated - Images



Western Blot of Rabbit anti-IL-2 Antibody Peroxidase Conjugated. Lane 1: 2ug Human IL-2 Recombinant Protein. Lane 2: 1ug Hu IL-2 Recombinant Protein. Lane 3: 500ng Hu IL-2 Recombinant Protein. Lane 4: 250ng Hu IL-2 Recombinant Protein. Secondary antibody: Peroxidase Conjugated IL-2 Antibody at 1:1000 for 60 min at RT. Block: TBST + 5% BLOTTO overnight. Predicted/Observed size: 16 kDa, 16 kDa. Other bands observed: 30kDa dimeric form of IL-2. Image courtesy of Prakash Arumugam, Boonshoft School of Medicine, Wright State University.

Anti-Human IL-2 (RABBIT) Antibody Peroxidase Conjugated - Background

IL-2 is a secreted cytokine that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine is a heterotrimeric protein complex whose gamma chain is also shared by interleukin 4 (IL4) and interleukin 7 (IL7). The expression of this gene in mature thymocytes is monoallelic, which represents an unusual regulatory mode for controlling the precise expression of a single gene. The targeted disruption of a similar gene in mice leads to ulcerative colitis-like disease, which suggests an essential role of this gene in the immune response to antigenic stimuli.