

**Anti-Human IL-2 (RABBIT) Antibody Biotin Conjugated**  
**IL-2 Antibody Biotin Conjugated**  
**Catalog # ASR4972****Specification****Anti-Human IL-2 (RABBIT) Antibody Biotin Conjugated - Product Information**

Host	Rabbit
Conjugate	Biotin
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	This purified antibody has been tested in western blotting and suitable in ELISA. 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) Sodium Azide

**Anti-Human IL-2 (RABBIT) Antibody Biotin 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 Biotin 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: <a href="http://www.uniprot.org/citations/6438535" target="\_blank">6438535</a>). 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: <a href="http://www.uniprot.org/citations/16293754" target="\_blank">16293754</a>, PubMed: <a href="http://www.uniprot.org/citations/16477002" target="\_blank">16477002</a>). 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: <a href="http://www.uniprot.org/citations/7973659" target="\_blank">7973659</a>). In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5 (PubMed: <a href="http://www.uniprot.org/citations/8580378" target="\_blank">8580378</a>). This process leads to activation of several pathways including STAT, phosphoinositide-3- kinase/PI3K and mitogen-activated protein kinase/MAPK pathways (PubMed: <a href="http://www.uniprot.org/citations/25142963" target="\_blank">25142963</a>). Functions as a T-cell growth factor and can increase NK-cell cytolytic activity as well (PubMed: <a href="http://www.uniprot.org/citations/6608729" target="\_blank">6608729</a>). Promotes strong proliferation of activated B-cells and subsequently immunoglobulin production (PubMed: <a href="http://www.uniprot.org/citations/6438535" target="\_blank">6438535</a>). 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**

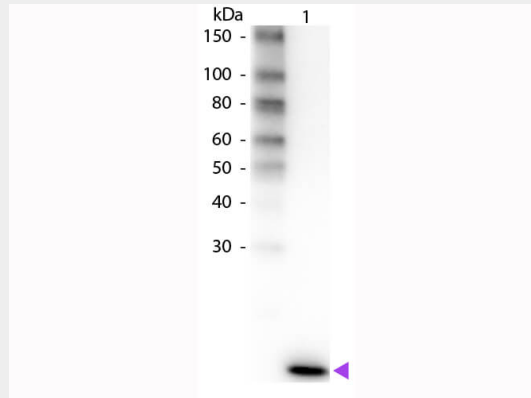
Secreted.

### **Anti-Human IL-2 (RABBIT) Antibody Biotin 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 Cytometry](#)
- [Cell Culture](#)

### Anti-Human IL-2 (RABBIT) Antibody Biotin Conjugated - Images



Western Blot of Rabbit anti-Human IL-2 Biotin Conjugated Antibody. Lane 1: Human IL-2. Lane 2: None. Load: 50 ng per lane. Primary antibody: Biotin Human IL-2 primary antibody at 1:1,000 overnight at 4°C. Secondary antibody: Peroxidase streptavidin secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 16 kDa, 16 kDa for Human IL-2. Other band(s): None.

### Anti-Human IL-2 (RABBIT) Antibody Biotin 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.