

**Anti-Human IL-7 (RABBIT) Antibody Biotin Conjugated**  
**IL-7 Antibody Biotin Conjugated**  
**Catalog # ASR4971**

**Specification**

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**Anti-Human IL-7 (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 for ELISA. By western blot a band approximately 17.4 kDa in size corresponding to human IL-7 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-7 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-7 (RABBIT) Antibody Biotin Conjugated - Additional Information**

**Gene ID** 3574

**Other Names**  
3574

**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-7 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-7 (RABBIT) Antibody Biotin Conjugated - Protein Information**

#### **Name IL7**

#### **Function**

Hematopoietic cytokine that plays an essential role in the development, expansion, and survival of naive and memory T-cells and B- cells thereby regulating the number of mature lymphocytes and maintaining lymphoid homeostasis (PubMed:<a href="http://www.uniprot.org/citations/25870237" target="\_blank">25870237</a>, PubMed:<a href="http://www.uniprot.org/citations/7527823" target="\_blank">7527823</a>). Mechanistically, exerts its biological effects through a receptor composed of IL7RA subunit and the cytokine receptor common subunit gamma/CSF2RG (PubMed:<a href="http://www.uniprot.org/citations/8128231" target="\_blank">8128231</a>). Binding to the receptor leads to activation of various kinases including JAK1 or JAK3 depending on the cell type and subsequently propagation of signals through activation of several downstream signaling pathways including the PI3K/Akt/mTOR or the JAK-STAT5 (PubMed:<a href="http://www.uniprot.org/citations/18523275" target="\_blank">18523275</a>, PubMed:<a href="http://www.uniprot.org/citations/20974963" target="\_blank">20974963</a>).

#### **Cellular Location**

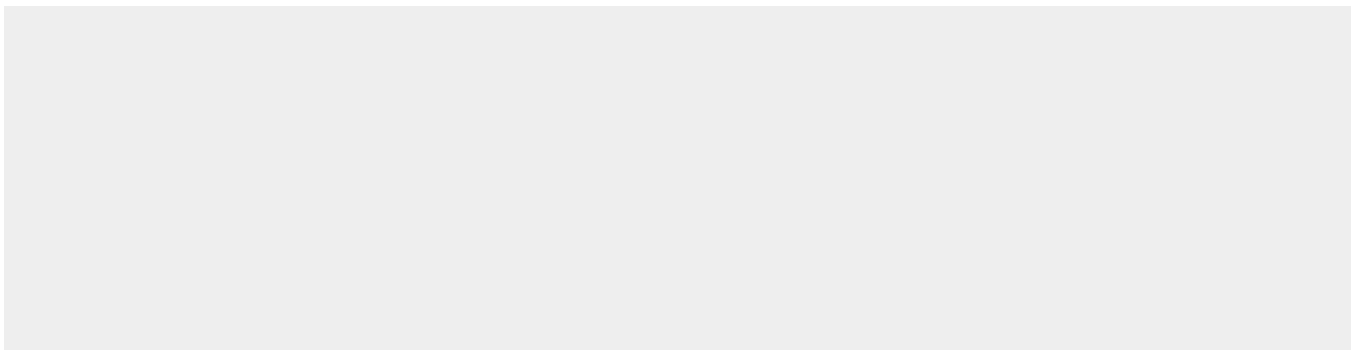
Secreted.

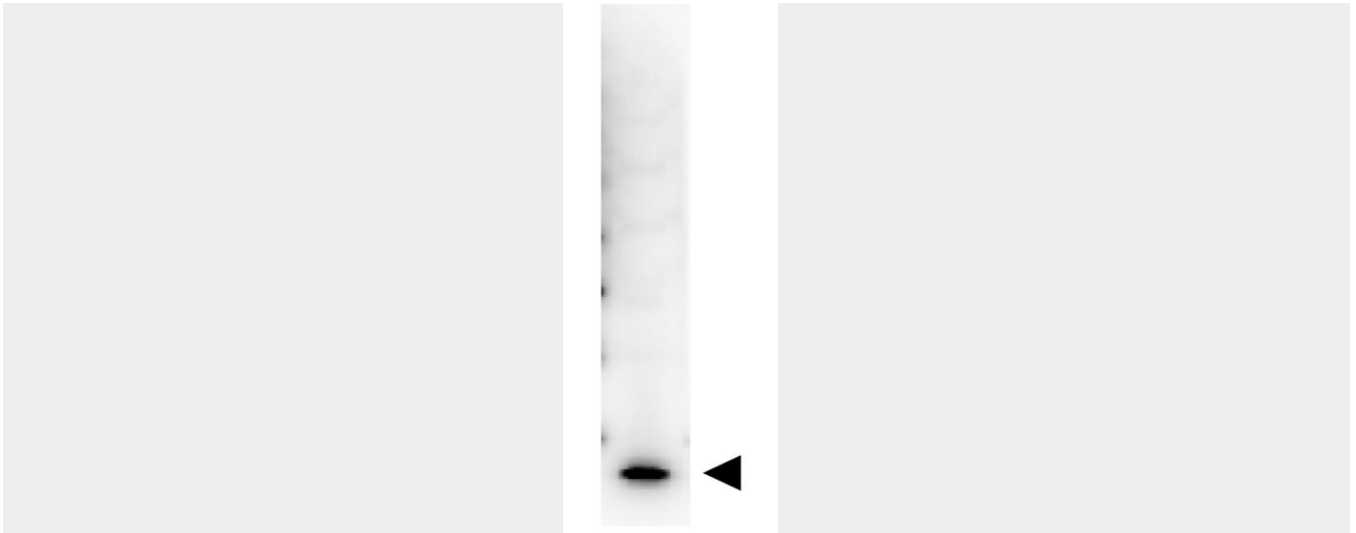
### **Anti-Human IL-7 (RABBIT) Antibody Biotin Conjugated - Protocols**

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-7 (RABBIT) Antibody Biotin Conjugated - Images**





Western Blot showing detection of Human IL-7. 50ng of Human IL-7 (Lane 1) was run on a 4-20% gel and transferred to 0.45  $\mu$ m nitrocellulose. After blocking with 5% Blotto (p/n B501-0500) 30 min at 20°C, Anti-Human IL-7 (RABBIT) Antibody Biotin Conjugated (p/n 209-406-B94) secondary antibody was used at 1:1000 in Blocking Buffer for Fluorescent Western Blotting (p/n MB-070). HRP Streptavidin (p/n S000-03) was used at 1:40,000 in MB-070 for 30 min at 20°C and imaged using the Bio-Rad VersaDoc® 4000 MP. Arrow indicates correct 17 kDa molecular weight position expected for Human IL-7.

#### **Anti-Human IL-7 (RABBIT) Antibody Biotin Conjugated - Background**

Interleukin 7 (IL7) is a lymphoid cell growth factor that affects pre-B, pro-B, and early T cells. IL7 was previously known as pre-B cell growth factor and lymphopoietin 1. IL7 supports the growth of early B cells from long-term lymphoid bone marrow cultures. It is mitogenic to thymocytes and enhances the response of cells to other stimuli such as polyhydroxyalkanoate (PHA) and concanavalin A (ConA). IL7 stimulates the proliferation of CD4+/CD8+ cells. The proliferative response of thymocytes to IL7 is not affected by antibodies to the T cell growth factors such as IL2, IL4 and IL6, suggesting that IL7 is capable of stimulating T cell proliferation through a pathway independent of the known T cell growth factors. Mature T cells respond to IL7 and Con A, but not to IL7 alone. In myeloid lineage cells, IL7 upregulates the production of pro-inflammatory cytokines and stimulates the tumoricidal activity of monocytes/macrophages. IL7 is expressed by adherent stromal cells from various tissues.