

**Anti-IL-3 Antibody**  
**Catalog # ABO12693****Specification**

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**Anti-IL-3 Antibody - Product Information**

Application	WB, IHC-P, E
Primary Accession	<a href="#">P08700</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Interleukin-3(IL3) detection. Tested with WB, IHC-P, ELISA in Human.

**Reconstitution**

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

**Anti-IL-3 Antibody - Additional Information**

**Gene ID** 3562

**Other Names**

Interleukin-3, IL-3, Hematopoietic growth factor, Mast cell growth factor, MCGF, Multipotential colony-stimulating factor, P-cell-stimulating factor, IL3

**Calculated MW**

17233 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat<br> <br>ELISA , 0.1-0.5 µg/ml, Human, -<br>Western blot, 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Secreted.

**Tissue Specificity**

Activated T-cells, mast cells, natural killer cells.

**Protein Name**

Interleukin-3(IL-3)

**Contents**

Each vial contains 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>. Carrier free (No BSA) form available in stock. If you want this antibody carrier free please specify "Carrier Free" or "No BSA" in your order note. "

**Immunogen**

E. coli-derived human IL-3 recombinant protein(Position: A20-F152).

**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.**

**Sequence Similarities**

Belongs to the IL-3 family.

**Anti-IL-3 Antibody - Protein Information**

**Name** IL3 ([HGNC:6011](#))

**Function**

Cytokine secreted predominantly by activated T-lymphocytes as well as mast cells and osteoblastic cells that controls the production and differentiation of hematopoietic progenitor cells into lineage- restricted cells (PubMed: [2556442](http://www.uniprot.org/citations/2556442)). Also stimulates mature basophils, eosinophils, and monocytes to become functionally activated (PubMed: [10779277](http://www.uniprot.org/citations/10779277), PubMed: [32889153](http://www.uniprot.org/citations/32889153)). In addition, plays an important role in neural cell proliferation and survival (PubMed: [23226269](http://www.uniprot.org/citations/23226269)). Participates as well in bone homeostasis and inhibits osteoclast differentiation by preventing NF-kappa-B nuclear translocation and activation (PubMed: [12816992](http://www.uniprot.org/citations/12816992)). Mechanistically, exerts its biological effects through a receptor composed of IL3RA subunit and a signal transducing subunit IL3RB (PubMed: [29374162](http://www.uniprot.org/citations/29374162)). Receptor stimulation results in the rapid activation of JAK2 kinase activity leading to STAT5-mediated transcriptional program (By similarity). Alternatively, contributes to cell survival under oxidative stress in non- hematopoietic systems by activating pathways mediated by PI3K/AKT and ERK (PubMed: [27862234](http://www.uniprot.org/citations/27862234)).

**Cellular Location**

Secreted.

**Tissue Location**

Activated T-cells, mast cells, natural killer cells

**Anti-IL-3 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-3 Antibody - Images

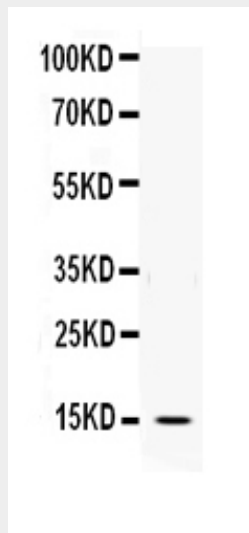


Figure. Western blot analysis of IL-3 using anti- IL-3 antibody (ABO12693). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane : Recombinant Human IL-3 Protein 0.5ng. 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-3 antigen affinity purified polyclonal antibody (Catalog # ABO12693) at 0.5 µg/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 1:10000 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-3 at approximately 15KD. The expected band size for IL-3 is at 15KD.

### Anti-IL-3 Antibody - Background

The gene IL-3 encodes interleukin 3, a hematopoietic colony-stimulating factor(CSF) that is capable of supporting the proliferation of a broad range of hematopoietic cell types.<sup>1</sup> Interleukin-3(IL-3), a protein of 140 amino acids, is chemically synthesized by means of an automated peptide synthesizer and is shown to have the biological activities attributed to native IL-3.<sup>2</sup> The cDNA sequence for murine interleukin-3, one of the colony stimulating factors that regulate haematopoiesis, codes for a polypeptide of 166 amino acids including a putative signal peptide.<sup>3</sup> The mouse IL 3 gene is located on chromosome 11.<sup>4</sup> The human gene encoding IL 3 is tandemly arrayed on the long arm of chromosome 5.<sup>5</sup> The standard product used in this kit is recombinant human IL-3, consisting of 133 amino acids with the molecular mass of 15KDa.