10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-IL-3 Antibody

Catalog # ABO12693

Product Information

Application	WB, IHC-P, E
Primary Accession	P08700
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.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat ELISA , 0.1-0.5 □g/ml, Human, - Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Secreted.
Tissue Specificity	Activated T-cells, mast cells, natural killer cells.
Source	Eukaryota
Protein Name	Interleukin-3(IL-3)
Contents	Each vial contains 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. 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 r˚Constitution, 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.

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). Also stimulates mature basophils, eosinophils, and monocytes to become functionally activated (PubMed:10779277, PubMed:32889153). In addition, plays an important role in neural cell proliferation and survival (PubMed:23226269). Participates as well in bone homeostasis and inhibits osteoclast differentiation by preventing NF-kappa-B nuclear translocation and activation (PubMed:12816992). Mechanistically, exerts its biological effects through a receptor composed of IL3RA subunit and a signal transducing subunit IL3RB (PubMed: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).
Cellular Location	Secreted.
Tissue Location	Activated T-cells, mast cells, natural killer cells

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.1 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-3.2 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.3 The mouse IL 3 gene is located on chromosome 11.4 The human gene encoding IL 3 is tandemly arrayed on the long arm of chromosome 5.5 The standard product used in this kit is recombinant human IL-3, consisting of 133 amino acids with the molecular mass of 15KDa.

Images

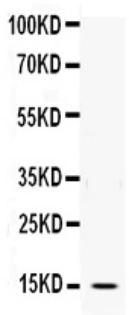


Figure. Western blot analysis of IL-3 using anti- IL-3 antibody (ABO12693). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane : Recombinant Human IL-3 Protein 0.5ngAfter 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 □¼g/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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.