

Anti- IL3 Monoclonal Antibody

Catalog # ABO15020

Product Information

Application	WB
Primary Accession	P01586
Host	Rat
Isotype	Rat IgG1
Reactivity	Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti- IL3 Monoclonal Antibody . Tested in WB applications. This antibody reacts with Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500 μ g/ml.

Additional Information

Gene ID	16187
Other Names	Interleukin-3, IL-3, Hematopoietic growth factor, Mast cell growth factor, MCGF, Multipotential colony-stimulating factor, P-cell-stimulating factor, IL3, Csfmu, IL-3
Calculated MW	18540
Application Details	Western blot, 0.25-0.5 μ g/ml, Mouse
Source	Eukaryota
Contents	PBS, pH 7.0. Contains no stabilizers or preservatives
Clone Names	Clone: AFIB-9
Immunogen	COS-expressed, recombinant mouse IL-3
Purification	Immunogen affinity purified.
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	IL3
Synonyms	Csfmu, IL-3

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. Also stimulates mature basophils, eosinophils, and monocytes to become functionally activated. In addition, plays an important role in neural cell proliferation and survival. Participates as well in bone homeostasis and inhibits osteoclast differentiation by preventing NF-kappa-B nuclear translocation and activation. Mechanistically, exerts its biological effects through a receptor composed of IL3RA subunit and a signal transducing subunit IL3RB (By similarity). Receptor stimulation results in the rapid activation of JAK2 kinase activity leading to STAT5-mediated transcriptional program (PubMed: 10376805 , PubMed: 31990690 , PubMed: 8378315). Alternatively, contributes to cell survival under oxidative stress in non- hematopoietic systems by activating pathways mediated by PI3K/AKT and ERK (By similarity).
Cellular Location	Secreted.
Tissue Location	Activated T-cells, mast cells, natural killer cells

Background

Interleukin 3, also known as IL-3, is a protein that in humans is encoded by the IL3 gene. It is mapped to 5q31.1. IL-3 is an interleukin, a type of biological signal (cytokine) that can improve the body's natural response to disease as part of the immune system. It acts by binding to the interleukin-3 receptor. IL-3 stimulates the differentiation of multipotent hematopoietic stem cells into myeloid progenitor cells or, with the addition of IL-7, into lymphoid progenitor cells. In addition, IL-3 stimulates proliferation of all cells in the myeloid lineage (granulocytes, monocytes, and dendritic cells), in conjunction with other cytokines, e.g., Erythropoietin (EPO), Granulocyte macrophage colony-stimulating factor (GM-CSF), and IL-6. IL-3 is secreted by basophils and activated T cells to support growth and differentiation of T cells from the bone marrow in an immune response.

Images

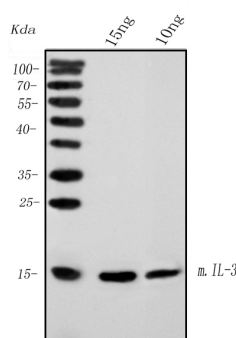


Figure 1. Western blot analysis of IL3 using anti-IL3 antibody (M02435).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.

Lane 1: recombinant mouse IL3 protein 15ng,

Lane 2: recombinant mouse IL3 protein 10ng.

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 rat

anti-IL3 antigen affinity purified monoclonal antibody

(Catalog # M02435) 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-rat 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 (Catalog # EK1001) with Tanon 5200

system.

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