

## Anti-IL-6 Monoclonal Antibody

Catalog Number: M00102-1

### Introduction

CD3epsilon is a 20kD chain, which together with CD3lambda, CD3delta, and CD3zeta, and a T cell receptor (alpha/beta or gamma/δ) form the CD3/T-cell receptor complex. It is a specific marker for T lymphocytes, NK T cells, and some thymocytes. Crosslinking of TCR initiates an intracellular signaling cascade resulting in cellular activation and proliferation. The OKT3 antibody has been reported to have potent immunosuppressive properties in vivo and has been proved effective in the treatment of renal, heart, and liver allograft rejection.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development or are reported in the literature.

### Application Information

Each lot of this antibody has been pre-titrated and tested by flow cytometric analysis of human PBMCs such that 2-5µl of this product is sufficient for staining of 1 million cells in a 100µl staining volume or 100µl of whole blood. This biotin conjugated antibody can be easily detected by any fluorochrome conjugated streptavidin. It is recommended that antibody reactivity be empirically titrated for optimal performance in the application of interest.

### About IL6

IL-6 is a secreted cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response and plays an essential role in the final differentiation of B-cells into Ig-secreting cells. Involved in lymphocyte and monocyte differentiation. IL-6 induces myeloma and plasmacytoma growth and induces nerve cells differentiation and acts on B-cells, T-cells, hepatocytes, hematopoietic progenitor cells and cells of the CNS. IL-6 also acts as a myokine. It is discharged into the bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance. Anti-IL-6 antibody is ideal for investigators involved in Cancer, Neuroscience and Immunology research.

### Overview

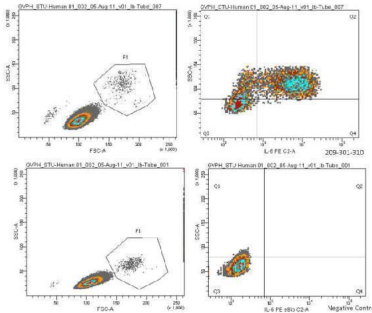
Product Name	Anti-IL-6 Monoclonal Antibody
Reactive Species	Human
Description	Boster Bio Anti-IL-6 Monoclonal Antibody (Catalog # M00102-1). Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human.
Conjugate	HRP
Application	ELISA, Flow Cytometry, WB
Clonality	Monoclonal Clone: 33A12.G9
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store IL 6 antibody at -20°C. 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. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Mouse
Uniprot ID	P05231

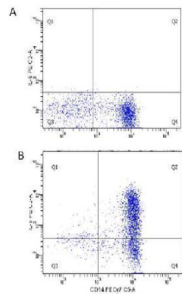
## Technical Details

Immunogen	This Protein A purified IL-6 monoclonal antibody was produced in mouse by repeated immunizations with mature full length recombinant human IL-6 produced in E.coli followed by hybridoma development.
Predicted Reactive Species	Bovine, Mammalian
Cross Reactivity	Weakly cross-reacts with human PDGF receptor beta.
Isotype	IgG1 kappa
Form	Liquid (sterile filtered)
Concentration	1.0 mg/mL by UV absorbance at 280 nm
Purification	This purified antibody detects recombinant and native IL-6 present in body fluids and cell supernatants in various assays (ie. IL-1 stimulated IL-6 production from fibroblasts). In Western blot analysis of natural cell products or human body fluids, multiple bands of IL-6 will appear due to the variable amount of glycosylation on the molecule.
Suggested Dilutions	ELISA: 1:10,000 Flow Cytometry: 0.5 mg/mL WB: 1:1000 Anti-IL-6 antibody has been tested for use in ELISA, Flow Cytometry, and western blotting. Reactivity is also expected in neutralizations, radioimmunoassay and immunohistochemistry. The endotoxin content is estimated to be <10 pg/μl by the LAL method. By western blot a band approximately 23.7 kDa in size corresponding to native human IL-6 protein is expected in the appropriate cell lysate or extract. Specific conditions for reactivity should be optimized by the end user.

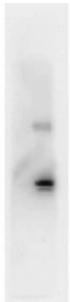
## Anti-IL-6 Monoclonal Antibody (M00102-1) Images



Anti-Human IL-6 Antibody - Flow Cytometry. Human PBMCs were stimulated with 1ug/mL LPS and a transport inhibitor for 4-5 hours. Cells were then suspended in fixation buffer for 10-12 minutes and vortexed briefly. 1mL of permeabilization buffer was added. 0.5mg of Anti-Human IL-6 Antibody was added (0.125 ug/mL control antibody) and incubated in the dark for 30 minutes. 1:100 of strep/PE was added and incubated for 30 minutes. LPS-stimulated samples were compared to unstimulated cells stained with strep/PE.



Flow Cytometry of Human anti-IL-6 antibody 209-301-310. Cells: human PBMC. Stimulation: Figure A: unstimulated; Figure B: 1 µg/mL LPS in a protein transport inhibitor for 5 hours. Staining: (surface) x-axis: anti-CD14, (intracellular) y-axis: anti-IL-6.



Western Blot showing detection of Human IL-6. 100 ng of Human IL-6 was run on a 4-20% gel and transferred to 0.45 µm nitrocellulose. After blocking with 1% BSA-TTBS 30 min at 20°C, Anti-Human IL-6 (MOUSE) Antibody was used at 1:1000 in 1% BSA-TTBS over night at 4°C. Peroxidase conjugated Rabbit Anti-mouse secondary antibody was used in Blocking Buffer for Fluorescent Western Blotting at 1:40,000 for 30 min at 20°C and imaged using the Bio-Rad VersaDoc® 4000 MP. Band indicates correct 17 kDa molecular weight position expected for Human IL-6.

## 11 Publications Citing This Product

1. PubMed ID: -, Gang Zhong, Huiping Long, Shiting Ma, Yao Shunhan, Jia Li, Jun Yao, miRNA-335-5p relieves chondrocyte inflammation by activating autophagy in osteoarthritis, Life Sciences, Volume 226, 2019, Pages 164-172, ISSN 0024-3205, <https://doi.org/10.1016/j.lfs.2019.03.071>.
2. PubMed ID: 24603891, Sun W, Liu Db, Li Ww, Zhang Li, Long Gx, Wang Jf, Mei Q, Hu Gq. Int J Oncol. 2014 May;44(5):1551-60. Doi: 10.3892/Ijo.2014.2323. Epub 2014 Mar 5. Interleukin-6 Promotes The Migration And Invasion Of Nasopharyngeal Carcinoma Cell Lines And Upregula...
3. PubMed ID: 26990441, Inhibition of Acute Lung Injury by TNFR-Fc through Regulation of an Inflammation-Oxidative Stress Pathway

Visit [bosterbio.com/anti-il-6-antibody-m00102-1-boster.html](http://bosterbio.com/anti-il-6-antibody-m00102-1-boster.html) to see all 11 publications.

Submit a product review to [Biocompare.com](http://Biocompare.com)

Submit a review of this product to [Biocompare.com](http://Biocompare.com) to receive a \$20 Amazon.com giftcard! Your



reviews help your fellow scientists make the right decisions. Thank you for your contribution.

### Anti-IL-6 Monoclonal Antibody

For Research Use Only. Not for use in diagnostic procedures.