

**Anti- IL-10 Monoclonal Antibody**  
**Catalog # ABO15023****Specification**

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**Anti- IL-10 Monoclonal Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P18893</a>
Host	Rat
Isotype	Rat IgG1, $\kappa$
Reactivity	Mouse
Clonality	Monoclonal
Format	Lyophilized

**Description**

Anti- IL-10 Monoclonal Antibody . Tested in IHC-P, WB applications. This antibody reacts with Mouse.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500  $\mu$ g/ml.

**Anti- IL-10 Monoclonal Antibody - Additional Information**

**Gene ID** 16153

**Other Names**

Interleukin-10, IL-10, Cytokine synthesis inhibitory factor, CSIF, IL10, IL-10

**Application Details**

Western blot, 0.25-0.5 $\mu$ g/ml, Mouse  
Immunohistochemistry (Paraffin-embedded Section), 2-5  $\mu$ g/ml, Mouse

**Protein Name**

Interleukin-10

**Contents**

PBS, pH 7.0. Contains no stabilizers or preservatives

**Immunogen**

Recombinant mouse IL-10

**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.**

**Anti- IL-10 Monoclonal Antibody - Protein Information**

**Name** IL10**Synonyms** IL-10**Function**

Major immune regulatory cytokine that acts on many cells of the immune system where it has profound anti-inflammatory functions, limiting excessive tissue disruption caused by inflammation. Mechanistically, IL10 binds to its heterotetrameric receptor comprising IL10RA and IL10RB leading to JAK1 and STAT2-mediated phosphorylation of STAT3. In turn, STAT3 translocates to the nucleus where it drives expression of anti-inflammatory mediators. Targets antigen-presenting cells (APCs) such as macrophages and monocytes and inhibits their release of pro-inflammatory cytokines including granulocyte-macrophage colony-stimulating factor /GM-CSF, granulocyte colony-stimulating factor/G-CSF, IL-1 alpha, IL-1 beta, IL-6, IL-8 and TNF-alpha. Also interferes with antigen presentation by reducing the expression of MHC- class II and co-stimulatory molecules, thereby inhibiting their ability to induce T cell activation (By similarity). In addition, controls the inflammatory response of macrophages by reprogramming essential metabolic pathways including mTOR signaling (By similarity) (PubMed:<a href="http://www.uniprot.org/citations/28473584" target="\_blank">28473584</a>).

**Cellular Location**

Secreted {ECO:0000250|UniProtKB:P22301}.

**Anti- IL-10 Monoclonal 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](#)

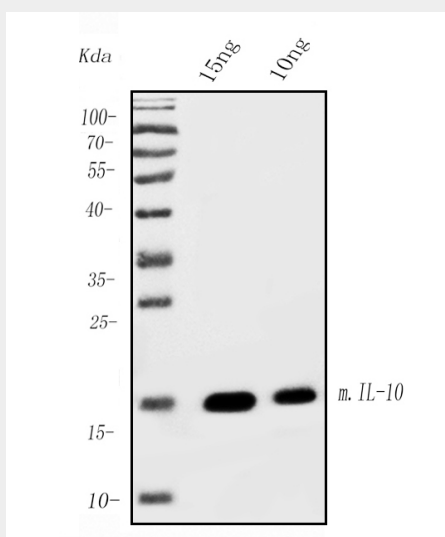
**Anti- IL-10 Monoclonal Antibody - Images**

Figure 1. Western blot analysis of IL-10 using anti-IL-10 antibody (M00021-1). 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 IL-10 protein 15ng,  
Lane 2: recombinant mouse IL-10 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-IL-10 antigen affinity purified monoclonal antibody (Catalog # M00021-1) 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.

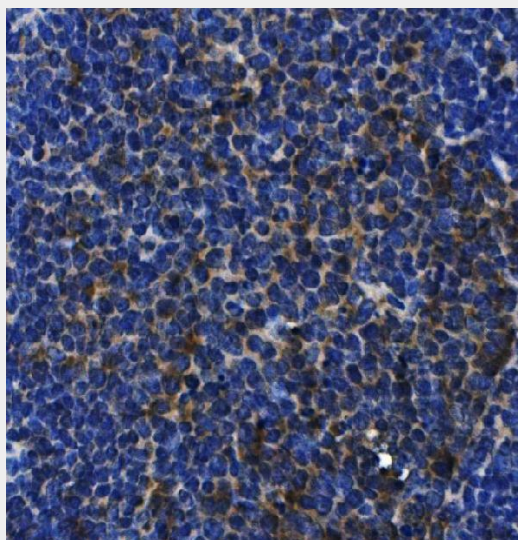


Figure 2. IHC analysis of IL-10 using anti-IL-10 antibody (M00021-1). IL-10 was detected in paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 µg/ml rat anti-IL-10 Antibody (M00021-1) overnight at 4°C. Biotinylated goat anti-rat IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

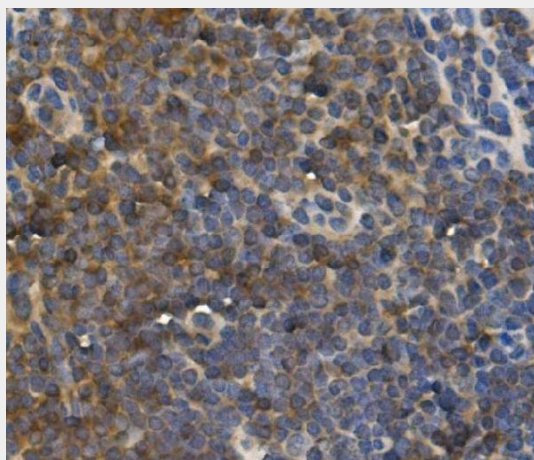


Figure 3. IHC analysis of IL-10 using anti-IL-10 antibody (M00021-1). IL-10 was detected in paraffin-embedded section of mouse lymphaden tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue

section was blocked with 10% goat serum. The tissue section was then incubated with 5 µg/ml rat anti-IL-10 Antibody (M00021-1) overnight at 4°C. Biotinylated goat anti-rat IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

#### **Anti- IL-10 Monoclonal Antibody - Background**

Interleukin-10 (IL-10 or IL10), also known as human cytokine synthesis inhibitory factor (CSIF), is an anti-inflammatory cytokine. In humans IL-10 is encoded by the IL10 gene. It is capable of inhibiting synthesis of pro-inflammatory cytokines like IFN-gamma, IL-2, IL-3, TNFalpha and GM-CSF made by cells such as macrophages and regulatory T-cells. IL-10 also displays potent abilities to suppress the antigen presentation capacity of antigen presenting cells. Kim et al. (1992) showed that the mouse IL 10 gene contains 5 exons and spans about 5.2 kb of genomic DNA. Eskdale et al. (1997) mapped the IL10 gene to the junction between 1q31 and 1q32.