10320 Camino Santa Fe, Suite G
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Anti- IL-10 Monoclonal Antibody
Catalog # ABO15023

Specification

Anti- IL-10 Monoclonal Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P18893
Host	**Rat**
Isotype	**Rat IgG1, κ**
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 µg/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 µg/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

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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. Interferes also 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:28473584).

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 Cytomety
- Cell Culture

Anti- IL-10 Monoclonal Antibody - Images

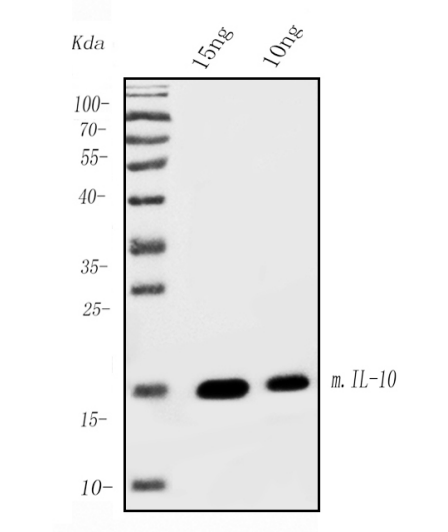

Figure 1. Western blot analysis of IL-10 using anti-IL-10 antibody (M00021-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
Lane 1: recombinant mouse IL-10 protein 15ng,
Lane 2: recombinant mouse IL-10 protein 10ng.
After Electrophoresis, 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.

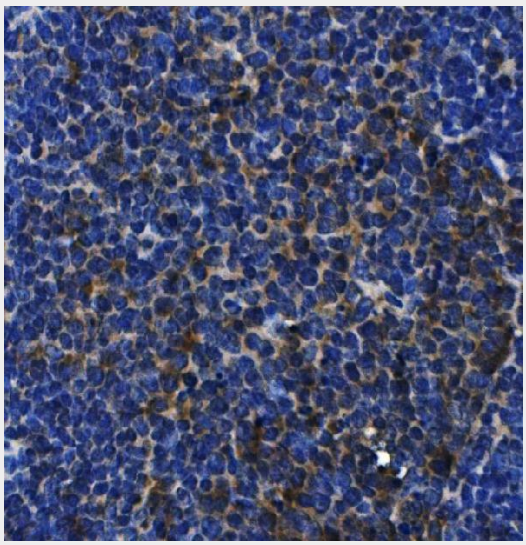

Figure 2. IHC analysis of IL-10 using anti-IL-10 antibody (M00021-1).
IL-10 was detected in paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

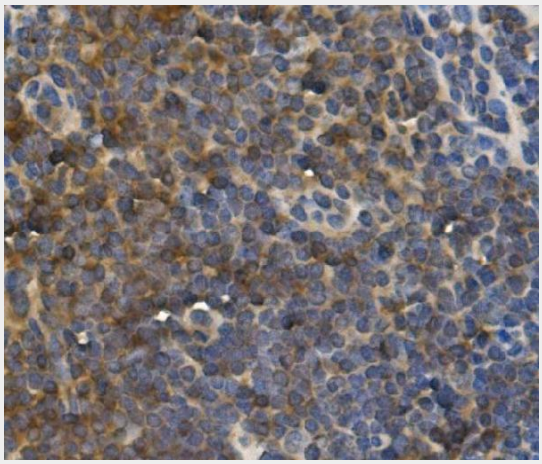

Figure 3. IHC analysis of IL-10 using anti-IL-10 antibody (M00021-1).
IL-10 was detected in paraffin-embedded section of mouse lymphaden tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue

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 Strepavidin-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.