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IL-10 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1011a

Product Information

Application	WB, E
Primary Accession	P22301
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3C12C12
Isotype	IgG1
Calculated MW	20517
Description	Interleukine 10 (IL-10) is a cytokine produced primarily by monocytes and to a lesser extent by lymphocytes. This cytokine has pleiotropic effects in immunoregulation and inflammation. It down-regulates the expression of Th1 cytokines, MHC class II Ags, and costimulatory molecules on macrophages. It also enhances B cell survival, proliferation, and antibody production. This cytokine can block NF-kappa B activity, and is involved in the regulation of the JAK-STAT signaling pathway. Knockout studies in mice suggested the function of this cytokine as an essential immunoregulator in the intestinal tract.
Immunogen	Purified recombinant fragment of human IL-10 expressed in E. Coli.
Formulation	Purified antibody in PBS containing 0.03% sodium azide.

Additional Information

Gene ID	3586
Other Names	Interleukin-10, IL-10, Cytokine synthesis inhibitory factor, CSIF, IL10
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IL-10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IL10
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 (PubMed:16982608). In turn, STAT3 translocates to the nucleus where it drives expression of anti-inflammatory mediators (PubMed:18025162). 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 (PubMed:11564774, PubMed:1940799, PubMed:7512027). 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 (PubMed:8144879). In addition, controls the inflammatory response of macrophages by reprogramming essential metabolic pathways including mTOR signaling (By similarity).

Cellular Location Secreted.

Tissue Location Produced by a variety of cell lines, including T- cells, macrophages, mast cells and other cell types

References

1. Vieira P, et al. PNAS, 1991.88:1172-1176.

Images

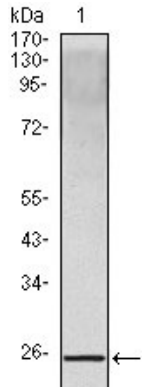

Figure 1: Western blot analysis using IL10 mouse mAb against IL10 recombinant protein.