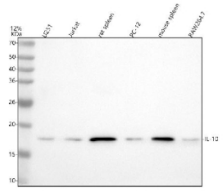
IL10 Antibody / Interleukin 10 [clone AOIG-9] (FY12858)

Catalog No.	Formulation	Size
FY12858	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AOIG-9
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P22301
Applications	Western Blot : 0.25-0.5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This IL10 antibody is available for research use only.



Western blot analysis of IL10 using anti-IL10 antibody. Lane 1: human U251 whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: rat spleen tissue lysates, Lane 4: rat PC-12 whole cell lysates, Lane 5: mouse spleen tissue lysates, Lane 6: mouse RAW264.7 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-IL10 antibody at 1:500 overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. Western blot of IL-10 in human and rodent spleen lysates shows a band at ~17-18 kDa, consistent with the mature, processed IL-10 monomer after removal of the signal peptide. The apparent size is slightly lower than the 21 kDa precursor predicted from the unprocessed sequence.

Description

IL10 antibody detects Interleukin 10, a pleiotropic anti-inflammatory cytokine that suppresses immune activation and maintains immune homeostasis. Encoded by the IL10 gene on chromosome 1q32.1, this cytokine is secreted primarily by monocytes, T regulatory cells, macrophages, and B cells. IL10 acts by limiting the expression of proinflammatory cytokines, antigen presentation, and costimulatory molecules, thereby protecting tissues from excessive immune-mediated damage.

Interleukin 10 functions through binding to the IL10 receptor complex, composed of IL10RA and IL10RB subunits, triggering activation of JAK1 and TYK2 kinases. This leads to phosphorylation of STAT3, which translocates to the nucleus to induce anti-inflammatory gene expression. Targets include SOCS3, IL1RA, and other regulatory molecules that dampen NF-?B-mediated transcription of inflammatory mediators such as TNF, IL1, and IL6. IL10 signaling is essential for balancing immune tolerance with pathogen defense.

The IL10 antibody is widely used in immunology, inflammation, and infectious disease research to study cytokine signaling, immune regulation, and autoimmune disorders. Western blot analysis detects a 19 kilodalton band corresponding to IL10, while ELISA and immunofluorescence applications reveal secretion patterns and localization in immune cell cultures. This antibody supports detailed characterization of IL10 expression in response to infection, inflammation, and therapeutic modulation.

Deficiency or dysregulation of IL10 signaling leads to chronic inflammation and autoimmune pathologies, including inflammatory bowel disease, rheumatoid arthritis, and psoriasis. Conversely, elevated IL10 levels in tumors and chronic infections can suppress immune responses and promote immune evasion. Therapeutic modulation of IL10 signaling is under investigation for treating autoimmune and inflammatory diseases, highlighting its dual protective and suppressive roles. The IL10 antibody provides a reliable tool for tracking cytokine expression, validating immunomodulatory pathways, and developing anti-inflammatory therapies. NSJ Bioreagents offers this antibody validated for its applications, ensuring high-quality performance in immune signaling research.

Application Notes

Optimal dilution of the IL10 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Interleukin-10 was used as the immunogen for the IL10 antibody.

Storage

Store the IL10 antibody at -20oC.

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