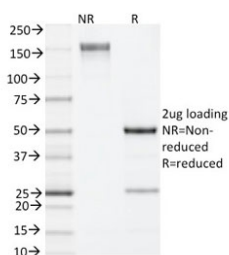


## IL-4 Antibody [clone 11B11] (V8351)

Catalog No.	Formulation	Size
V8351-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8351-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8351SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

[Bulk quote request](#)

<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Mouse
<b>Format</b>	Purified
<b>Clonality</b>	Monoclonal (rat origin)
<b>Isotype</b>	Rat IgG1, kappa
<b>Clone Name</b>	11B11
<b>Purity</b>	Protein G affinity chromatography
<b>UniProt</b>	P07750
<b>Applications</b>	ELISA (order BSA/azide-free Format) : Flow Cytometry : 1-2ug/10 <sup>6</sup> cells in 0.1ml Immunofluorescence : 1-2ug/ml
<b>Limitations</b>	This IL-4 antibody is available for research use only.



SDS-PAGE analysis of purified, BSA-free IL-4 antibody (clone 11B11) as confirmation of integrity and purity.

## Description

IL-4 antibody detects interleukin-4, a cytokine encoded by the IL4 gene. IL-4 is produced primarily by Th2 cells, basophils, and mast cells, and it plays a pivotal role in promoting humoral immunity. It directs naïve CD4<sup>+</sup> T cells toward Th2

differentiation, stimulates B-cell proliferation, and induces immunoglobulin class switching, particularly to IgE. Because of its importance in allergic disease, immunity to parasites, and regulation of inflammation, IL-4 antibody is widely used in immunology and clinical research.

IL-4 is a small glycoprotein that signals through the IL-4 receptor, composed of IL-4R $\alpha$  and either the common gamma chain or IL-13R $\alpha$ 1. Engagement activates the JAK-STAT pathway, primarily STAT6, leading to transcription of genes that promote Th2 responses. Its activity establishes a cytokine environment that favors antibody-mediated defense and modulates macrophage polarization toward alternatively activated phenotypes.

The IL-4 antibody clone 11B11 provides specific and reproducible recognition of this cytokine. Clone 11B11 has been cited in peer-reviewed studies investigating allergic inflammation, asthma models, and helminth immunity. It has also been applied in research on autoimmunity and transplant biology, where IL-4 activity can shape immune outcomes. Its reliable performance makes it suitable for ELISA, flow cytometry, and immunohistochemistry.

Research using clone 11B11 has clarified how IL-4 contributes to pathological processes such as airway hyperreactivity and fibrosis, while also supporting protective immunity against parasitic infections. The antibody has been used to block IL-4 activity in experimental systems, providing insights into how Th2 cytokines orchestrate immune regulation. These studies highlight IL-4's dual nature as both a protective and pathogenic mediator, depending on context.

NSJ Bioreagents supplies this IL-4 antibody to support research in allergy, immunology, and inflammation. Alternate terms include interleukin 4 antibody, B-cell stimulatory factor 1 antibody, BSF-1 antibody, Th2 cytokine antibody, IgE class switch factor antibody, and IL4 protein antibody.

## Application Notes

Optimal dilution of the IL-4 antibody should be determined by the researcher.

## Immunogen

Partially purified native mouse IL-4 protein was used as the immunogen for this IL4 antibody.

## Storage

Store the IL-4 antibody at 2-8°C (with azide) or aliquot and store at -20°C or colder (without azide).