



Catalog Number: 10395-mhK23

General Information	
Immunogen:	Recombinant Human IL6 / IL-6 protein (Catalog#10395-HNAE)
Clone ID:	mhK23
Ig Type:	mouse (varialbe region) / human (kappa / IgG1 constant) chimeric antibody
Applications:	Neutralization
Specificity:	Human IL6 / IL-6
Formulation:	0.2 µm filtered solution in PBS
Storage:	< -20°C

Preparation

It is a chimeric monoclonal antibody combining the constant domains of the human IgG1 molecule with mouse variable regions. The variable region was obtained from a mouse immunized with purified, recombinant Human IL6 / IL-6. The antibody was produced using recombinant antibody technology.

Specificity

Human IL6 / IL-6

No cross-reactivity with rat IL6 (Catalog#80076-RNAE) and mouse IL6 (Catalog#50136-MNAE) in ELISA assay

Storage

This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. **Preservative-Free**.

Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles**.

Background

Interleukin-6 (IL-6) is a multifunctional α -helical cytokine that regulates cell growth and differentiation of various tissues, which is known particularly for its role in the immune response and acute phase reactions. IL-6 protein is secreted by a variety of cell types including T cells and macrophages as phosphorylated and variably glycosylated molecule. It exerts actions through the its heterodimeric receptor composed of IL-6R that lacks the tyrosine/kinase domain and binds IL-6 with low affinity, and ubiquitously expressed glycoprotein 130 (gp130) that binds the IL-6. IL-6R complex with high affinity and thus transduces signals. IL-6 is also involved in hematopoiesis, bone metabolism, and cancer progression, and has been defined an essential role in directing transition from innate to acquired immunity.

Reference

Heinrich PC, et al. (2003). Principles of interleukin-6-type cytokine signalling and its regulation. *Biochem J*. 374: 1-20.

Rose-John S, et al. (2007) The IL-6/sIL-6R complex as a novel target for therapeutic approaches. *Expert Opin Ther Targets*. 11 (5): 613-24.

Dinh W, et al. (2009) Elevated plasma levels of TNF-alpha and interleukin-6 in patients with diastolic dysfunction and glucose metabolism disorders. *Cardiovasc Diabetol*. 8:58.

IL6 / IL-6 Neutralizing Antibody



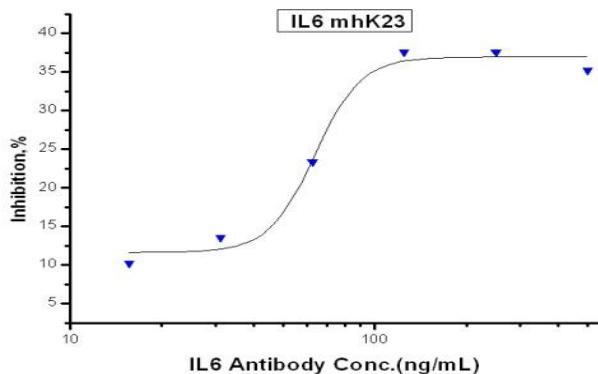
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Applications

Block - Human IL6ST Fc chimera do not bind IL-6 by itself, but is required for high-affinity binding to the complex consisting of IL6 and IL6R. In a functional ELISA which immobilized Human IL6ST Fc chimera (Catalog#10974-H03H) at 2 μ g/mL (100 μ L/well) in the plate, the Mouse and Human Chimeric anti-Human IL6 Monoclonal Antibody (Catalog#10395-mhK23) can block the complex consisting of IL6 (Catalog#10395-HNAE) at 0.2 μ g/mL and IL6R (Catalog#10395-HNAE) at 0.2 μ g/mL binding to Human IL6ST Fc chimera ,the EC50 is 0.53 μ g/mL.

Neutralization - The neutralization activity of IL6 Neutralizing Antibody is measured by its ability to neutralize IL6 induced proliferation in the T1165 mouse plasmacytoma cell line. The antibody Neutralizing Titer (IC50) is typically 32.0-128.0 ng/mL in the presence of 10 ng/mL Recombinant Human IL6 (Catalog#10395-HNAE).



Cell Proliferation Induced by IL6 and Neutralization by Human IL6 Antibody. Recombinant Human IL6 (Catalog#10395-HNAE) stimulates proliferation in the T1165 mouse plasmacytoma cell line. Proliferation elicited by 10 ng/mL of Recombinant Human IL6 is neutralized by increasing concentrations of Human IL6 neutralizing Monoclonal Antibody (Catalog#10395-mhk23). The IC50 is typically 32.0-128.0 ng/mL.