

IL-6 Neutralizing Antibody



Sino Biological
Biological Solution Specialist

Catalog Number: 10395-MK23

General Information

Immunogen:	Recombinant Human IL-6 Protein (Catalog#10395-HNAE)
Clone ID:	MK23
Ig Type:	Mouse IgG1
Applications:	Neutralization
Specificity:	Human IL6 / IL-6
Formulation:	0.2 µm filtered solution in Histidine and Arginine buffer containing 120mM NaCl, 0.02% Tween 80, pH6.0
Storage:	< -20°C

Preparation

This product is a recombinant monoclonal antibody expressed from HEK293 cells.

Specificity

Human 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.**

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 2µg/ml (100 µL/well) in the plate, the Mouse anti-Human IL6 Monoclonal Antibody (Catalog#10395-mK23) can block the complex consisting of IL6 (Catalog#10395-HNAE) at 0.2 µg/mL and IL6R (Catalog#10395-HNAE) at 0.2 µg/mL binding to Human IL6ST Fc chimera, the EC50 is 0.21 µg/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.

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 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.

Character	Method	Result
Specificity	ELISA	Human IL6 / IL-6 (Catalog#10395-HNAE)
Antibody concentration	UV	> 1 mg/mL
Aggregation	SEC-HPLC	< 5% aggregation
Purity	SDS-PAGE	> 95%
Endotoxin	LAL gel clotting	< 3 EU/mg

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