

## IL6 / IL-6 Neutralizing Antibody



Catalog Number: 10395-R508

General Information	
<b>Immunogen:</b>	Recombinant Human IL6 / IL-6 protein (Catalog#10395-HNAE)
<b>Clone ID:</b>	R508
<b>Ig Type:</b>	Rabbit IgG
<b>Applications:</b>	Neutralization
<b>Specificity:</b>	Human IL6 / IL-6
<b>Formulation:</b>	0.2 µm filtered solution in PBS
<b>Storage:</b>	< -20°C

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**Preparation**

This antibody was obtained from a rabbit immunized with purified, recombinant Human IL6 / IL-6 (rHuman IL6 / IL-6; Catalog#10395-HNAE; NP\_000591.1; Val30-Met212) and 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  $\alpha$ -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.

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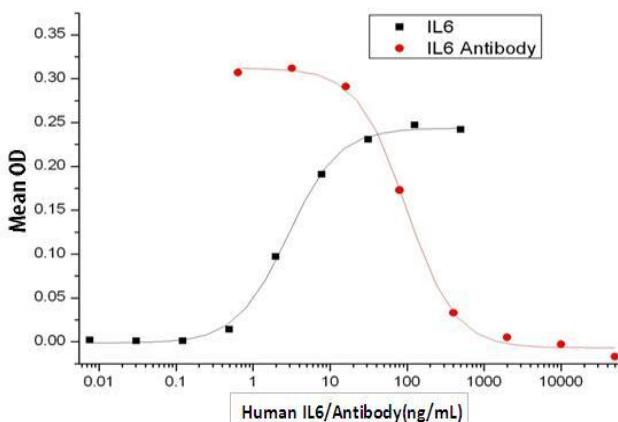
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## Applications

**Block** - In a functional ELISA which immobilized Human IL6R (Catalog#10398-H08H) at 2  $\mu$ g/mL (100  $\mu$ L/well) in the plate, the Rabbit anti-Human IL6 Monoclonal Antibody (Catalog#10395-R508) can block the binding of 0.2  $\mu$ g/mL of IL6 to Human IL6R , The EC50 is 0.67  $\mu$ 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 20.5-82 ng/mL in the presence of 10 ng/mL Recombinant Human IL6 (Catalog#10395-HNAE).



**Cell Proliferation Induced by IL6 and neutralized by Human IL6 Antibody.** Recombinant Human IL6 (Catalog#10395-HNAE) stimulates proliferation in the T1165 mouse plasmacytoma cell line in a dose-dependent manner (blank line). Proliferation elicited by 10 ng/mL of Recombinant Human IL6 is neutralized (red line) by increasing concentrations of Human IL6 neutralizing Monoclonal Antibody (Catalog#10395-R508). The IC50 is typically 20.5-82 ng/mL.