Human IL-6R alpha Antibody

Polyclonal Goat IgG

Catalog Number: AB-227-NA

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-6R alpha in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant mouse IL-6R alpha and recombinant human LIF is observed.
Source	Polyclonal Goat IgG
Purification	Protein A or G purified
Immunogen	S. frugiperda insect ovarian cell line Sf 21-derived recombinant human IL-6R alpha Leu20-Asp358 Accession # P08887
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

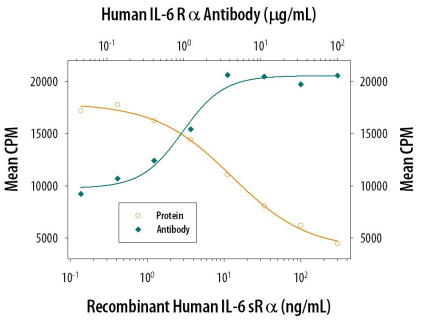
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human IL-6 Rα (Catalog # 227-SR)
Neutralization	Measured by its ability to neutralize IL-6 Rα-mediated inhibition of proliferation in the M1 mouse myeloid leukemia cell line. The Neutralization Dose (ND_{50}) is typically 1-4 µg/mL in the presence of 30 ng/mL Recombinant Human IL-6 Rα and 30 ng/mL Recombinant Human IL-6.	

DATA

Neutralization



IL-6R alphaEnhancement of IL-6-dependent Inhibition of Cell Proliferation and Neutralization by Human IL-6R alpha Antibody. Recombinant Human IL-6R alpha (Catalog # 227-SR) enhances Recombinant Human IL-6 (Catalog # 206-IL) inhibition of proliferation in the M1 mouse myeloid leukemia cell line in a dose-dependent manner (orange line). Enhancement of Recombinant Human IL-6 (30 ng/mL) activity elicited by Recombinant Human IL-6R alpha (30 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human IL-6R alpha Polyclonal Antibody (Catalog # AB-227-NA). The ND_{50} is typically 1-4 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

The multi-functional factor interleukin 6 (IL-6) exerts its activities through binding to a high-affinity receptor complex consisting of two membrane glycoproteins: an 80 kDa component receptor that binds IL-6 with low affinity (IL-6 Rα) and a signal-transducing component of 130 kDa (gp130) that does not bind IL-6 by itself, but is required for high-affinity binding of IL-6 by the complex. Both components of the receptor complex, IL-6 Rα and gp130 have been cloned, sequenced, and expressed (1-4).

A soluble form of the IL-6 Rα has been found in the urine of healthy adult humans (5). This soluble receptor apparently arises from proteolytic cleavage of membrane-bound IL-6 Rα and is about 50kDa in size. No naturally-occurring mRNA encoding a truncated form of the IL-6 Rα has been reported. Soluble forms of human and murine IL-6 Rαs have been constructed, however, by insertion of termination codons into the regions of the IL-6 Rα cDNAs encoding the external portions of the receptors and prior to the transmembrane domains. These soluble receptors have been expressed in COS-7 and CHO cells and have been shown to bind to IL-6 in solution and to augment the activity of IL-6 as a result of the binding of the IL-6/IL-6 Rα complex to membrane-bound gp130 (6, 7).

References:

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3. Hibi *et al.* (1990) Cell **63**:1149.
4. Schooltink *et al.* (1991) Eur. J. Biochem. **277**:659.
5. Novick *et al.* (1989) J. Exp. Med. **170**:1409.
6. Yasukawa *et al.* (1990) J. Biochem. **108**:673.
7. Saito *et al.* (1991) J. Immunology **147**:168.

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