

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-6 R $\alpha$ in ELISAs and Western blots. In ELISAs, no cross-reactivity or interference was observed with recombinant human (rh) IL-1 $\alpha$ , recombinant mouse (rm) IL-1 $\alpha$ , rhIL-1 $\beta$ , rmIL-1 $\beta$ , rhIL-1ra, rhIL-2, rhIL-3, rmIL-3, rhIL-4, rmIL-4, rhIL-5, rmIL-5, rhIL-6, rmIL-6, rhIL-7, rmIL-7, rhIL-8, rhIL-9, rmIL-9, rhIL-10, or rhIL-11.
<b>Source</b>	Recombinant Monoclonal Mouse IgG <sub>1</sub> Clone # 17506R
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-6 R $\alpha$ Leu20-Asp339 Accession # P08887
<b>Conjugate</b>	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

#### 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
<b>Flow Cytometry</b>	0.25-1 $\mu$ g/10 <sup>6</sup> cells	U937 Human Cell Line

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

#### 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 R $\alpha$ ) 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 R $\alpha$  and gp130 have been cloned, sequenced, and expressed (1-4).

A soluble form of the IL-6 R $\alpha$  has been found in the urine of healthy adult humans (5). This soluble receptor apparently arises from proteolytic cleavage of membrane-bound IL-6 R $\alpha$  and is about 50kDa in size. No naturally-occurring mRNA encoding a truncated form of the IL-6 R $\alpha$  has been reported. Soluble forms of human and murine IL-6 Ras have been constructed, however, by insertion of termination codons into the regions of the IL-6 R $\alpha$  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 R $\alpha$  complex to membrane-bound gp130 (6, 7).

#### References:

1. Yamasaki *et al.* (1988) *Science* **241**:825.
2. Baumann *et al.* (1990) *J. Biol. Chem.* **265**:19853.
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.

#### PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.