

DESCRIPTION

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| Species Reactivity | Human |
| Specificity | Detects human IL-6 R in ELISAs and Western blots. In ELISAs, no cross-reactivity or interference was observed with recombinant human (rh) IL-1 α , recombinant mouse (rm) IL-1 α , rhIL-1 β , rmIL-1 β , 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. |
| Source | Monoclonal Mouse IgG ₁ Clone # 17506 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-6 R Leu20-Asp339 Accession # P08887 |
| Conjugate | Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm |
| Formulation | 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 |
|-----------------------|--------------------------------------|---|
| Flow Cytometry | 0.25-1 μ g/10 ⁶ cells | U937 human histiocytic lymphoma cell line |

PREPARATION AND STORAGE

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

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 α) 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 α and gp130 have been cloned, sequenced, and expressed (1-4).

A soluble form of the IL-6 R α 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 α . No naturally-occurring mRNA encoding a truncated form of the IL-6 R α has been reported. Soluble forms of human and murine IL-6 R α s have been constructed, however, by insertion of termination codons into the regions of the IL-6 R α 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 α 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.

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