

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-6R alpha in ELISAs and Western blots. In sandwich immunoassays, no cross-reactivity or interference was observed with recombinant human (rh) IL-1α, recombinant mouse (rm) IL-1α, rhIL-1β, rmIL-1β, 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-6R alpha Leu20-Asp339 Accession # P08887
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied 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.

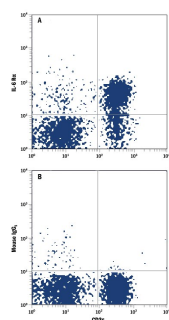
APPLICATIONS

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	10 µL/10 ⁶ cells	See Below

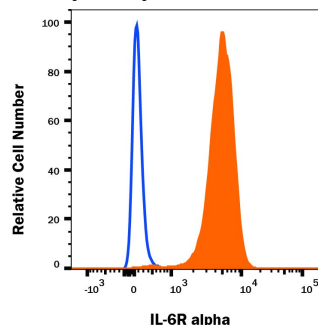
DATA

Flow Cytometry



Detection of IL-6R alpha in Human Blood Lymphocytes by Flow Cytometry. Human peripheral blood lymphocytes were stained with Mouse Anti-Human CD3e APC-conjugated Monoclonal Antibody (Catalog # [FAB100A](#)) and either (A) Mouse Anti-Human IL-6R alpha PE-conjugated Monoclonal Antibody (Catalog # [FAB227P](#)) or (B) Mouse IgG₁ Phycoerythrin Isotype Control (Catalog # [IC002P](#)). View our protocol for [Staining Membrane-associated Proteins](#).

Flow Cytometry



Detection of IL-6R alpha in U937 cells by Flow Cytometry U937 cells were stained with Mouse Anti-Human IL-6R alpha PE-conjugated Monoclonal Antibody (Catalog # [FAB227P](#), filled histogram) or isotype control antibody (Catalog # [IC002P](#), open histogram). View our protocol for [Staining Membrane-associated Proteins](#).

PREPARATION AND STORAGE

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, K. *et al.* (1988) *Science* **241**:825.
2. Baumann, M. *et al.* (1990) *J. Biol. Chem.* **265**:19853.
3. Hibi, M. *et al.* (1990) *Cell* **63**:1149.
4. Schooltink, H. *et al.* (1991) *Eur. J. Biochem.* **277**:659.
5. Novick, D. *et al.* (1989) *J. Exp. Med.* **170**:1409.
6. Yasukawa, K. *et al.* (1990) *J. Biochem.* **108**:673.
7. Saito, T. *et al.* (1991) *J. Immunology* **147**:168.