

DESCRIPTION

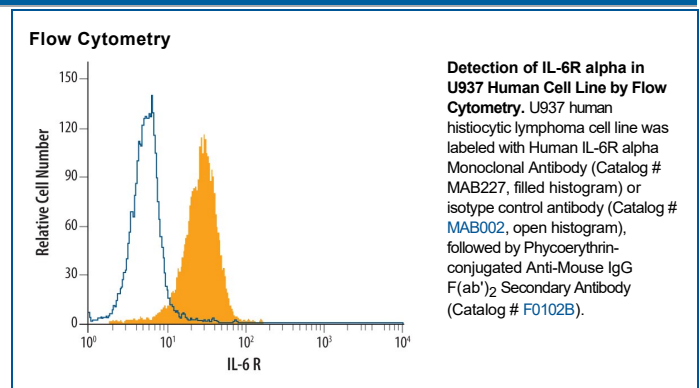
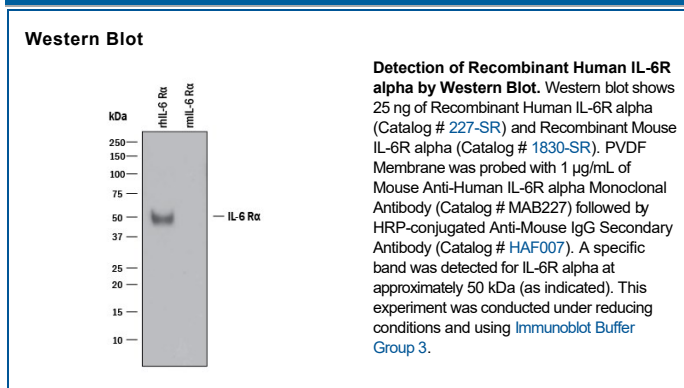
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|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human IL-6R alpha in ELISAs and Western blots. In ELISAs, no cross-reactivity or interference was observed with recombinant human (rh) IL-1 α , recombinant mouse (rm) IL-1 α , rhIL-1 β , rmlIL-1 β , rhIL-1ra, rhIL-2, rhIL-3, rmlIL-3, rhIL-4, rmlIL-4, rhIL-5, rmlIL-5, rhIL-6, rmlIL-6, rhIL-7, rmlIL-7, rhIL-8, rhIL-9, rmlIL-9, rhIL-10, or rhIL-11. |
| Source | Monoclonal Mouse IgG ₁ Clone # 17506 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | S. frugiperda insect ovarian cell line Sf 21-derived recombinant human IL-6R alpha Leu20-Asp339 Accession # P08887 |
| Endotoxin Level | <0.10 EU per 1 μ g of the antibody by the LAL method. |
| Formulation | Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS. |

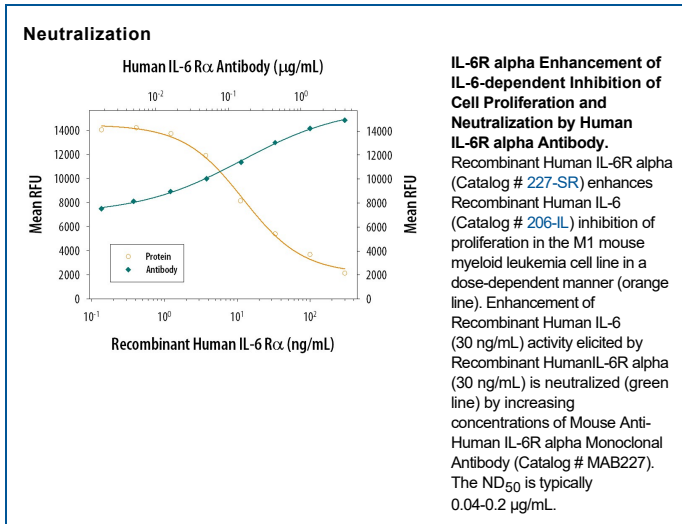
APPLICATIONS

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 μ g/mL | See Below |
| Flow Cytometry | 0.25 μ g/10 ⁶ cells | See Below |
| Human IL-6R alpha Sandwich Immunoassay | | Reagent |
| ELISA Capture | 2-8 μ g/mL | Human IL-6R alpha Antibody (Catalog # MAB227) |
| ELISA Detection Standard | 0.1-0.4 μ g/mL | Human IL-6R alpha Biotinylated Antibody (Catalog # BAF227) Recombinant Human IL-6R alpha (Catalog # 227-SR) |
| CyTOF-ready | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |
| Neutralization | Measured by its ability to neutralize IL-6R alpha-mediated enhancement of IL-6-dependent Inhibition of cell proliferation in the M1 mouse myeloid leukemia cell line. The Neutralization Dose (ND ₅₀) is typically 0.04-0.2 μ g/mL in the presence of 30 ng/mL Recombinant Human IL-6R alpha and 30 ng/mL Recombinant Human IL-6. | |

DATA





PREPARATION AND STORAGE

Reconstitution Reconstitute at 0.5 mg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

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.

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 and is about 50kDa in size. 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.