

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-6 R α in direct ELISAs.
Source	Recombinant Monoclonal Mouse IgG ₁ Clone # 556704R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IL-6 R α Arg387-Arg468 Accession # P08887
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.

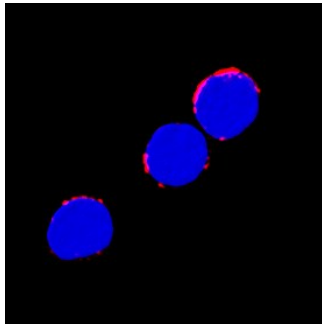
APPLICATIONS

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
Immunocytochemistry	3-25 μ g/mL	See Below

DATA

Immunocytochemistry



IL-6 R α in Human PBMCs. IL-6 R α was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Recombinant Mouse Anti-Human IL-6 R α Monoclonal Antibody (Catalog # MAB2271R) at 3 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

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. <ul style="list-style-type: none"> ● 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 (1-4). Within the extracellular domain, human IL-6 R α shares 52% aa sequence identity with mouse and rat IL-6 R α .

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.