

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-10 R α in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 10% cross-reactivity with recombinant mouse IL-10 R α and less than 5% cross-reactivity with recombinant human (rh) CNTF sR α and rhIL-2 sR γ is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-10 R α His22-Asn235 Accession # Q13651
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.

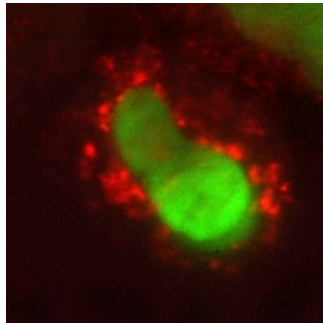
APPLICATIONS

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	0.1 μ g/mL	Recombinant Human IL-10 R α (Catalog # 274-R1)
Immunocytochemistry	5-15 μ g/mL	See Below
Neutralization	Measured by its ability to neutralize IL-10 R α -mediated IL-10 response in LPS-activated human peripheral blood mononuclear cells (PBMC) [Ralph, P. <i>et al.</i> (1991) <i>J. Immunology</i> 148 :808]. The Neutralization Dose (ND ₅₀) is typically 20-40 μ g/mL in the presence of 0.25 ng/mL Recombinant Human IL-10 and 0.25 ng/mL LPS.	

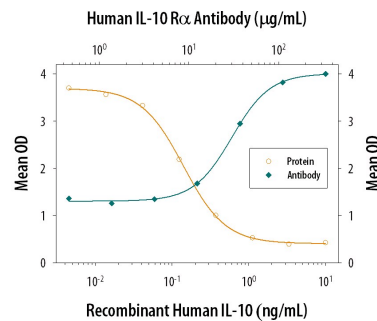
DATA

Immunocytochemistry



IL-10 R α in Human PBMCs. IL-10 R α was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using 15 μ g/mL Goat Anti-Human IL-10 R α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-274-NA) for 3 hours at room temperature. Cells were stained (red) and counterstained (green). View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Neutralization



IL-10 Inhibition of IL-1 β secretion and Neutralization by Human IL-10 R α Antibody. Recombinant Human IL-10 (Catalog # 217-IL) inhibits IL-1 β secretion in LPS-activated human peripheral blood mononuclear cells (PBMC) in a dose-dependent manner (orange line), as measured by the Human IL-1 β /IL-1F2 Quantikine ELISA Kit (Catalog # DLB50). IL-1 β secretion inhibited by Recombinant Human IL-10 (0.25 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human IL-10 R α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-274-NA). The ND₅₀ is typically 20-40 μ g/mL in the presence of LPS (0.25 ng/mL).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

IL-10, initially designated cytokine synthesis inhibitory factor (CSIF), is a potent immunosuppressant of macrophage functions. IL-10 is also a pleiotropic cytokine with multiple immunostimulatory as well as immunosuppressive effects on a variety of other cell types. IL-10 binds specifically and with high affinity to cell-surface receptors. Mouse and human cDNA clones encoding the ligand-binding IL-10 receptor (IL-10 R) have been isolated. The IL-10 R mRNA has been detected in all cell types that are known to respond to IL-10.

Human and mouse IL-10 receptors are structurally related to the IFN- γ receptor. These receptors are members of the class II subgroup of the cytokine receptor superfamily. The deduced amino acid sequence of human IL-10 R is approximately 60% identical to mouse IL-10 R. Although human IL-10 has cross-species activities and is active on mouse cells, mouse IL-10 is species-specific in its actions and does not bind to the human IL-10 receptor. The human IL-10 R gene has been mapped to chromosome 11q23.3. Recombinant IL-10 soluble receptor, consisting of the extracellular domain of IL-10 R, binds IL-10 with high affinity in solution and is a potent IL-10 antagonist.