

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-10 R $\alpha$ in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse IL-10 R alpha or recombinant human (rh) IL-10 R beta is observed. In Western blots, no cross-reactivity with rhIL-10 R beta is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 714212
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived and <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-10 R $\alpha$ His22-Asn235 Accession # Q13651
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ 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 $\mu$ m filtered solution in PBS.

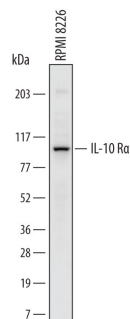
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.5 $\mu$ g/mL	See Below
<b>Flow Cytometry</b>	0.25 $\mu$ g/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

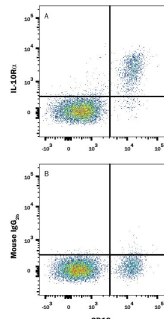
## DATA

### Western Blot



**Detection of Human IL-10 R $\alpha$  by Western Blot.** Western blot shows lysates of RPMI 8226 human multiple myeloma cell line. PVDF membrane was probed with 0.5  $\mu$ g/mL of Mouse Anti-Human IL-10 R $\alpha$  Monoclonal Antibody (Catalog # MAB2742) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for IL-10 R $\alpha$  at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Flow Cytometry



**Detection of IL-10 R $\alpha$  in Human Blood Lymphocytes by Flow Cytometry.** Human peripheral blood lymphocytes were stained with Mouse Anti-Human IL-10 R $\alpha$  Monoclonal Antibody (Catalog # MAB2742) followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B) and Mouse Anti-Human CD19 APC-conjugated Monoclonal Antibody (Catalog # FAB4867A). Quadrant markers were set based on control antibody staining (Catalog # MAB0041). View our protocol for [Staining Membrane-associated Proteins](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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- $\gamma$  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.