

## DESCRIPTION

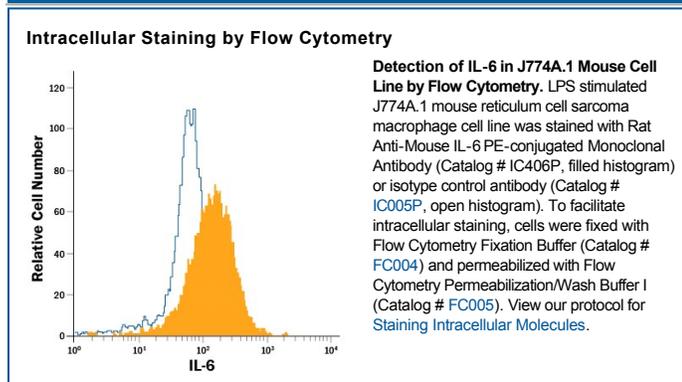
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-6 in ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) IL-6, recombinant porcine IL-6, recombinant rat IL-6, rhIL-11, rhCT-1, or rhCLC is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>1</sub> Clone # MP520F3
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	COS-7 African green monkey SV40 transformed kidney fibroblast-like cell line-derived recombinant mouse IL-6
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	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
<b>Intracellular Staining by Flow Cytometry</b>	10 µL/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

IL-6 (Interleukin-6), also known as Interferon β<sub>2</sub>, is a secreted, 24-30 kDa member of the IL-6 family of proteins. In mouse, mature IL-6 is a highly glycosylated, monomeric polypeptide that is 187 amino acids (aa) in length, and shares 85% and 40% aa identity with rat and human IL-6, respectively. IL-6 expression is induced in a highly diverse group of cells including vascular and visceral smooth muscle cells, T helper cells, fibroblasts, astrocytes, endothelial cells, neurons, monocytes, microglia, pancreatic islet α-cells, osteoblasts, keratinocytes and white adipocytes. The receptor for IL-6 is composed of two distinct type I transmembrane glycoproteins, an 80-85 kDa ligand-binding IL-6Rα subunit, and two signal-transducing 130-135 kDa gp130 subunits. Notably, the IL-6 system seems to exist as one of two states; there is a "classic signaling" state where IL-6 interacts with the transmembrane forms of both IL-6Rα and gp130 in a signaling complex, and an IL-6 "trans-signaling" state, where IL-6 is bound to soluble IL-6Rα in a circulating complex that subsequently interacts with transmembrane gp130. The "classic signaling" complex occurs on select cells such as hepatocytes, neutrophils and monocytes. The outcome of "classic signaling" is typically anti-inflammatory, promoting hepatocyte and pancreatic proliferation and regeneration, plus hepatic acute phase protein production. "Trans-signaling", by contrast, is very widespread, as a soluble IL-6Rα:IL-6 complex can go almost everywhere and interact with the ubiquitously-expressed gp130. Relative to "classic signaling" however, this type of signaling is typically pro-inflammatory, and results in endothelial and smooth muscle cell activation, an inhibition of Treg differentiation, and a mononuclear cell infiltration into inflammatory environments.