

#### DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-11 in ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant mouse (rm) Cardiotrophin-1, recombinant rat CNTF, rmlL-6, recombinant human (rh) IL-11, rhLIF, or rmOSM is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 188507
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse IL-11 Gly23-Leu199 Accession # P47873
<b>Formulation</b>	Lyophilized from a 0.2 µm 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 µm 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.

Mouse IL-11 Sandwich Immunoassay		Reagent
<b>ELISA Capture</b>	2-8 µg/mL	Mouse IL-11 Antibody (Catalog # MAB4181)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Mouse IL-11 Biotinylated Antibody (Catalog # BAF418)
<b>Standard</b>		Recombinant Mouse IL-11 (Catalog # 418-ML)

#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<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

Interleukin-11 is a pleiotropic cytokine that was originally detected in the conditioned medium of an IL-1 $\alpha$ -stimulated primate bone marrow stromal cell line (PU-34) as a mitogen for the IL-6-responsive murine plasmacytoma cell line T1165. IL-11 was also independently discovered as an adipogenesis inhibitory factor (AGIF). The mouse IL-11 cDNA encodes a 199 amino acid residue precursor polypeptide with a 22 amino acid residue hydrophobic signal that is processed proteolytically to generate the 177 amino acid residue mature protein. IL-11 contains no cysteine residues or potential glycosylation sites.

IL-11 has multiple effects on both hematopoietic and nonhematopoietic cells. Many of the biological effects described for IL-11 overlap those for IL-6. *In vitro*, IL-11 can synergize with IL-3, IL-4 and SCF to shorten the G<sub>0</sub> period of early hematopoietic progenitors. IL-11 also enhances the IL-3-dependent megakaryocyte colony formation. IL-11 has been found to stimulate the T cell dependent development of specific immunoglobulin-secreting B cells. IL-11, in the presence of IL-3 or SCF, has also been shown to stimulate erythropoiesis. Among nonhematopoietic cell populations, IL-11, like IL-6 and LIF, can stimulate the synthesis of hepatic acute-phase proteins. Consistent with the *in vitro* functions of IL-11, *in vivo* administration of rhIL-11 in normal mice was found to enhance the generation of Ig producing cells and platelets, and to increase the cycling rates of bone marrow-derived CFU-GM, BFU-E, and CFU-GEMM progenitors.

IL-11 exerts its biological activities through binding to a specific high-affinity receptor complex consisting of an IL-11 receptor alpha chain and gp130.