



MONOCLONAL ANTI-INTERLEUKIN-6 (IL-6), RAT CLONE 53325.111

Purified Mouse Immunoglobulin

Product Number **I3903**

Product Information

Product Description

Monoclonal Anti-Rat Interleukin-6 (IL-6) (mouse IgG2b isotype) is derived from a hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with purified recombinant rat IL-6, expressed in *E. coli*. The antibody is purified from tissue culture supernatant using protein G.

Monoclonal Anti-Rat IL-6 may be used for detection and localization of rat interleukin-6. The antibody may be used for ELISA.

Interleukin-6 (IL-6), is a multifunctional protein originally discovered in the medium taken from RNA-stimulated fibroblastoid cells.¹ IL-6 was originally identified as a T cell-derived lymphokine that induces the final maturation step of B cells into antibody producing cells.² IL-6 is a pleiotrophic factor and acts on a variety of tissues.^{3,4} Activities include: immunoglobulin secretion in B cells, production of various acute-phase proteins in liver cells, growth promotion on various B cells such as myeloma, plasmacytoma and hybridoma cells, maturation of megakaryocytes, neuronal differentiation, and osteoclast activation. IL-6 has been implicated in many diseases,⁵ including Castleman's disease, multiple myeloma, rheumatoid arthritis and postmenopausal osteoporosis. IL-6 is produced by fibroblasts, activated T cells, activated monocytes or macrophages, and endothelial cells. Alternative names are plasmacytoma growth factor (PCT-GF), interferon- β -2 (IFN- β 2), monocyte derived human B cell growth factor, B cell stimulating factor (BSF-2), hepatocyte stimulating factor (HSF) and Interleukin Hybridoma/Plasmacytoma-1 (IL-HP1).

Reagents

Monoclonal Anti-Rat IL-6 is supplied lyophilized from a 0.2 μ m filtered solution of phosphate buffered saline.

Endotoxin level is < 10 ng per mg antibody as determined by the LAL method.

Preparation Instructions

To one vial of lyophilized powder, add 1 ml of 0.2 μ m-filtered PBS to produce a 0.5 mg/ml stock solution of antibody. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage/Stability

Prior to reconstitution, store at -20°C . Reconstituted product may be stored at $2-8^{\circ}\text{C}$ for at least one month. For prolonged storage, freeze in working aliquots at -20°C . Avoid repeated freezing and thawing.

Product Profile

For capture ELISA, using a biotinylated detection antibody, a working concentration of 4 $\mu\text{g/ml}$ is determined as coat using 100 $\mu\text{l/well}$ to detect a range of 125 – 8000 pg/ml of recombinant rat IL-6.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration test.

References

1. Billiau, D., Immunol. Today, **8**, 84 (1987).
2. Hirano, T., et al., Complementary DNA for a novel human interleukin (BSF-2) that induces B lymphocytes to produce immunoglobulin. Nature, **324**, 73-76 (1986).
3. Kishimoto, T., the biology of interleukin-6, Blood, **74**, 1-10 (1989).
4. Kishimoto, T., et al., Interleukin-6 and its receptor: a paradigm for cytokines. Science, **258**, 593-597 (1992).
5. Akira, S., et al., Interleukin-6 in biology and medicine. Adv. Immunol., **54**, 1-78 1993.

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