

**MONOCLONAL ANTI-HUMAN GRANULOCYTE
MACROPHAGE-COLONY STIMULATING
FACTOR (GM-CSF) RECEPTOR CLONE 2B7-17-A**
Purified Mouse ImmunoglobulinProduct No. **G7284**
Lot 065H6722

Monoclonal Anti-Human Granulocyte Macrophage-Colony Stimulating Factor (GM-CSF) Receptor (mouse IgG2a isotype) is purified from a mouse hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice. Mouse FDC-P1 cells stably transfected with the hGM-CSFR α -chain cDNA were used as the immunogen. The antibody is purified by Protein G affinity chromatography. Monoclonal Anti-Human GM-CSF Receptor is provided lyophilized from phosphate buffered saline to which no preservatives are added.

Description

Granulocyte Macrophage-Colony Stimulating Factor is a growth and differentiation factor for a variety of hematopoietic progenitor cells.¹ All of the biologic actions of GM-CSF are mediated through the interaction of GM-CSF with specific cellular receptors. The granulocyte macrophage-colony stimulating factor receptor (GM-CSFR) results from the dimerization of the low-affinity α -chain with a nonligand binding β -chain.² The α -chain of the GM-CSFR contains a 200 amino acid domain in the extracellular portion and constitutes the ligand-binding domain.³ This antibody recognizes an epitope of the GM-CSFR and completely inhibits binding of GM-CSF to the receptor.³ This antibody inhibits the bioactivity of GM-CSF.

Performance

Anti-Human GM-CSF Receptor is tested for its ability to neutralize the biological activity of rhGM-CSF on TF-1 cells by blocking the binding of GM-CSF to cell surface receptors on human TF-1 cells. The ND₅₀ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rhGM-CSF which is present at a concentration just high enough to elicit a maximum response. In this bioassay, recombinant human GM-CSF is mixed with various

dilutions of the antibody and the antigen-antibody mixture is added to confluent cultures of TF-1 cells in a 96-well plate. The assay mixture is incubated at 37°C in a humidified CO₂ incubator. After incubation MTT is added to the 96-well plate and the absorbance is read at 540 nm.

Product Information

Protein/vial: 0.25 mg
Immunogen: FDC-P1 cells transfected with the α -chain of the human granulocyte macrophage-colony stimulating factor receptor.
Purity: \geq 95% by SDS-PAGE
Isotype: Mouse IgG2a
Formulation: Lyophilized from PBS without additives.
Bioactivity: ND₅₀ = 11.0 μ g/ml
Sterility: 0.2 μ m filtered, aseptic fill

Reconstitution and Use

To one vial of lyophilized powder, add 0.25 ml of 0.2 μ m-filtered distilled water. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage

Store lyophilized product at 2-8°C for 12 months. Store reconstituted product at 2-8°C. For prolonged storage, store in working aliquots at 2-8°C for a maximum of 6 months.

References

1. Metcalf, D., In: "The Molecular Control of Blood Cells," Harvard University, Cambridge, (1988).
2. Nicola, N., et al., Blood, **82**, 1724 (1993).
3. Bazan, J., et al., Proc. Natl. Acad. Sci. USA, **87**, 6934 (1990).

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