



Rat Anti-Human GM-CSF

Cat. No.	Form	Quantity
10112-01	Purified (UNLB) Antibody	0.5 mg
10112-08	Biotin (BIOT) Conjugate	0.5 mg

DESCRIPTION

CLONE	BVD2-21C11
IMMUNOGEN	<i>E. coli</i> -expressed human GM-CSF
ISOTYPE	Rat IgG _{2a}
SPECIFICITY	Human granulocyte/macrophage – colony stimulating factor (GM-CSF) ¹⁻⁴ The BVD2-21C11 antibody has been reported to cross react with GM-CSF from Rhesus monkey. (This is a neutralizing antibody.)

RESEARCH APPLICATIONS

ELISA Detection: Biotinylated BVD2-21C11 monoclonal antibody is the preferred detection antibody in a sandwich ELISA for quantifying human GM-CSF protein levels.¹⁻⁴ Biotinylated BVD2-21C11 antibody should be paired with purified BVD2-23B6 antibody (Cat. No. 10111-01) as the capture antibody, with purified recombinant human GM-CSF as the standard.

Immunofluorescence/Flow Cytometry: BVD2-21C11 antibodies are useful for intracytoplasmic staining and flow cytometric analysis to identify and enumerate GM-CSF-positive cells within mixed cell populations. Recombinant human GM-CSF, unlabeled BVD2-21C11 (Cat. No. 10112-01), or Rat IgG_{2a} (Cat. No. 01117-08) should be used as a specificity control.

Since applications vary, each investigator should determine the optimal concentration appropriate for individual applications.

CHARACTERIZATION

To ensure acceptable performance, each batch of product is tested in a sandwich ELISA to conform to characteristics of a standard reference reagent.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg labeled antibody in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- Reagents are stable for the period shown on the label if stored as directed.

WARNING

Reagents contain sodium azide. Sodium azide is very toxic if ingested or inhaled. Avoid contact with skin, eyes, or clothing. Wear eye or face protection when handling. If skin or eye contact occurs, wash with copious amounts of water. If ingested or inhaled, contact a physician immediately. Sodium azide yields toxic hydrazoic acid under acidic conditions. Dilute azide-containing compounds in running water before discarding to avoid accumulation of potentially explosive deposits in lead or copper plumbing.

REFERENCES

1. Abrams, J.S., M.-G. Roncarolo, H. Yssel, U. Andersson, G.J. Gleich, and J.E., Silver. 1992. Strategies of anti-cytokine monoclonal antibody development: Immunoassay of IL-10 and IL-5 in clinical samples. *Immunol. Rev.* 127:5-24.
2. Abrams, J., J. Silver, R. van Dyke, and G. Gleich. 1994. Eosinophil-active cytokines in human disease: Development and use of monoclonal antibodies to IL-3-, IL-5, GM-CSF. In *Eosinophils in Allergy and Inflammation* (A. Kay and G. Gleich, eds). Marcel Dekker, New York, pp. 133-157.
3. Bacchetta, R., T. de Wall Malefyt, H. Yssel, J.S. Abrams, J.E. de Vries, H. Spits, and M.G. Roncarolo. 1990. Host reactive CD4+ and CD8+ T cells clones isolated from a human chimera produce IL-5, IL-2, IFN-gamma and granulocyte/macrophage stimulating factor but not IL-4. *J. Immunol.* 144:902-908.
4. Kita, H., T. Ohnishi, Y. Okubo, D. Weller, J.S. Abrams, and G.J. Gleich. 1991. GM-CSF and interleukin-3 release by human peripheral blood eosinophils and neutrophils. *J. Exp. Med.* 174:745-748.

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