

# Product Data Sheet

## Biotin anti-human GM-CSF

**Catalog # / Size:** 502303 / 50 µg  
502304 / 500 µg

**Clone:** BVD2-21C11

**Isotype:** Rat IgG2a, κ

**Immunogen:** *E. coli*-expressed, recombinant human GM-CSF.

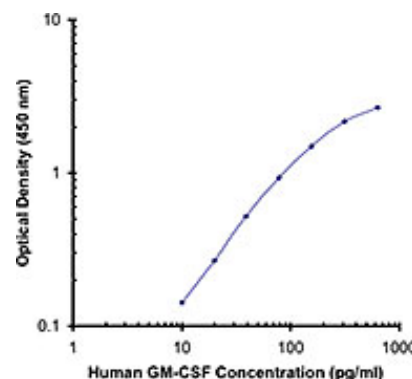
**Reactivity:** Human, **Cross-Reactivity:** Cynomolgus, Rhesus

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



## Applications:

**Applications:** ELISA Detection, ELISPOT Detection, ICFC

**Recommended Usage:** Each lot of this antibody is quality control tested by ELISA assay. For use as an ELISA detection antibody, a concentration range of 0.25-1.0 µg/ml is recommended. To obtain a linear standard curve, serial dilutions of human GM-CSF protein ranging from 500 to 4 pg/ml are recommended for each ELISA plate. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** **ELISA<sup>1-4</sup> or ELISPOT<sup>3,4</sup> Detection:** The biotinylated BVD2-21C11 antibody is useful as a detection antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the purified BVD2-23B6 antibody (Cat. No. 502202/502204) as the capture antibody.  
**Flow Cytometry:** The fluorochrome-labeled BVD2-21C11 is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify GM-CSF-producing cells within mixed cell populations.  
**Neutralization:** The BVD2-21C11 antibody can neutralize the bioactivity of natural or recombinant GM-CSF<sup>1</sup>.  
**Additional reported applications (for the relevant formats) include:** immunoprecipitation<sup>1</sup>, Western blotting, immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections<sup>5,6</sup>, and immunocytochemistry.  
**Note:** For testing human GM-CSF in serum or plasma, BioLegend's ELISA Max™ Sets (Cat. No. 432001 to 432006) are specially developed and recommended.

**Application References:**

1. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5.
2. Abrams J, *et al.* 1994. *Eosinophils in Allergy and Inflammation*. Marcel Dekker New York. p.133.
3. Bacchetta R, *et al.* 1990. *J. Immunol.* 144:902.
4. Kita H, *et al.* 1991. *J. Exp. Med.* 174:745.
5. Andersson U, *et al.* 1999. *Detection and quantification of gene expression*. New York:Springer-Verlag.
6. Andersson J, *et al.* 1994. *Immunology* 83:16.

**Description:** Granulocyte/macrophage - colony stimulating factor (GM-CSF) is a hematopoietic factor that is produced by activated T cells, B cells, mast cells, macrophages, fibroblasts, and endothelial cells. In addition to supporting colony formation of granulocyte/macrophage progenitors, GM-CSF is a growth factor for erythroid, megakaryocyte, and eosinophil progenitors.

**Antigen References:**

1. Fitzgerald K, *et al.* Eds. 2001. *The Cytokine FactsBook*. Academic Press San Diego.
2. Demetri G, *et al.* 1991. *Blood* 78:2791.
3. Fan D, *et al.* 1991. *In vivo* 5:571.
4. Negrin R, *et al.* 1992. *Adv. Pharmacol.* 23:263.

### Related Products:

**Product**  
Purified anti-human GM-CSF  
Recombinant Human GM-CSF  
HRP Avidin  
TMB Substrate Reagent Set  
ELISA Assay Diluent (5X)

**Clone**  
BVD2-23B6  
rh GM-CSF  
Avidin

**Application**  
ELISA Capture, IP, WB  
BA, ELISA  
ELISA, ELISPOT, IHC, WB  
ELISA  
ELISA



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