



# GM-CSF Monoclonal Rat Antibody (BVD2-21C11)

## Product 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. Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors. **Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order. **Catalog number key for antibody number 0662, Anti-GM-CSF (BVD2-21C11)**

## References

Note: References for this clone sold by other suppliers may be listed for expected applications.

- 1. J Immunol (2015) 194: 5085-5093. (Flow, intracellular; IF)
- 2. J Exp Med (1999) 190 (6): 875-880. (ELISA)

### Product attributes

Antibody number	#0662
Antibody reactivity (target)	GM-CSF
Antibody type	Primary
Host species	Rat
Clonality	Monoclonal
Clone	BVD2-21C11
Isotype	IgG2a, kappa
Molecular weight	22 kDa
Synonyms	Burst Promoting Activity; Eosinophil Colony Stimulating Factor; Molgramostin; Pluripoietin Alpha; Sargramostim
Human gene symbol	CSF2
Entrez gene ID	1437
SwissProt	P04141
Unigene	1349
Immunogen	Recombinant human GM-CSF protein
Antibody target cellular localization	Secreted (extracellular)
Species reactivity	Cynomolgus monkey, Human, Rhesus monkey
Expected antibody applications	ELISA (published for clone), Flow (intracellular) (published for clone), IF (published for clone)
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunoprecipitation: 0.5-1 ug/500 ug protein lysate, Immunofluorescence: 0.5-1 ug/mL, Immunohistology (frozen) 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Western blotting 0.5-1 ug/mL, Neutralization Studies order Ab without azide, Optimal dilution for a specific application should be determined by user
Positive control	Lymph node and tonsil
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Cytokines, Immunology

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405
BNC88	CF®488A	490/515	488	GFP, FITC
BNC68	CF®568	562/583	532, 561	RFP, TRITC
BNC94	CF®594	593/614	561	Texas Red®
BNC40	CF®640R	642/662	633-640	Cy®5
BNC47	CF®647	650/665	633-640	Cy®5
BNCB	Biotin	N/A	N/A	N/A
BNUB	Purified	N/A	N/A	N/A
BNUM	Purified, BSA-free	N/A	N/A	N/A

- Dye Features**
- [CF®405S Features](#)
  - [CF®488A Features](#)
  - [CF®568 Features](#)
  - [CF®594 Features](#)
  - [CF®640R Features](#)
  - [CF®647 Features](#)

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