

Anti-Mouse G-CSF Functional Grade Purified

Catalog Number: 16-7353

Also known as: Granulocyte Colony-Stimulating Factor, CSF-3

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Mouse G-CSF Functional Grade Purified
Catalog Number: 16-7353
Clone: 9B4CSF
Concentration: 1 mg/mL
Host/Isotype: Rat IgG2a, kappa
Handling Conditions: Use in sterile environment.
Endotoxin: Less than 0.001 ng/ug antibody, as determined by the LAL assay.



Formulation: aqueous buffer, no sodium azide
Temperature Limitation: Store at 2-8°C.

Batch Code: Refer to vial

Use By: Refer to vial

Description

This 9B4CSF monoclonal antibody reacts with mouse G-CSF (Granulocyte Colony-Stimulating Factor), a growth factor that stimulates the proliferation, differentiation, and mobilization of hematopoietic stem cells. It is expressed by monocytes, macrophages, and bone marrow stromal cells, and can also be induced in fibroblasts by IL-17A. Unlike GM-CSF and IL-3, which can stimulate cells of multiple lineages, G-CSF activity is limited to neutrophilic granulocytes. G-CSF is essential to the maintenance of neutrophil counts during homeostasis, and low basal levels of the protein are detectable in the serum of healthy individuals. Circulating levels become elevated rapidly upon infection, as G-CSF is also important for the activation and mobilization of mature neutrophils during the innate immune response. G-CSF therapy is commonly used to treat neutropenia following bone marrow transplant or chemotherapy.

This 9B4CSF antibody has been demonstrated to cross-react with human G-CSF. However, it is recommended to use Anti-Human G-CSF Functional Grade Purified (clone 4A4RC, cat. 16-7338) for neutralization of human G-CSF.

Applications Reported

This 9B4CSF monoclonal antibody inhibits the activity of mouse G-CSF.

Applications Tested

The ND50 of 9B4CSF, as measured by the inhibition of M-NFS-60 cell proliferation, is less than or equal to 150 ng/mL in the presence of 0.125 ng/mL of Mouse G-CSF Recombinant Protein. Neutralization dose will vary depending on assay method, cytokine concentration, and cell type. This antibody should be carefully titrated for optimal performance in the assay of interest.

References

von Vietinghoff S, Ley K. Homeostatic regulation of blood neutrophil counts. *J Immunol.* 2008 Oct 15;181(8):5183-8.

Panopoulos AD, Watowich SS. Granulocyte colony-stimulating factor: molecular mechanisms of action during steady state and 'emergency' hematopoiesis. *Cytokine.* 2008 Jun; 42(3): 277-88.

Lieschke GJ, Grail D, Hodgson G, Metcalf D, Stanley E, Cheers C, Fowler KJ, Basu S, Zhan YF, Dunn AR. Mice lacking granulocyte colony-stimulating factor have chronic neutropenia, granulocyte and macrophage progenitor cell deficiency, and impaired neutrophil mobilization. *Blood.* 1994 Sep 15; 84(6): 1737-46.

Related Products

14-8522 Mouse G-CSF Recombinant Protein

16-4321 Rat IgG2a K Isotype Control Functional Grade Purified (eBR2a)

16-7338 Anti-Human G-CSF Functional Grade Purified (4A4RC)

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