

Human G-CSF Antibody

Purified No Carrier Protein

Monoclonal Antibody

Product Information

Product No.: G664
Clone: 3316
RRID: AB_2830254
Isotype: Mouse IgG1
Storage: -20°C to -70°C

Product Description

Specificity:

Mouse Anti-Human G-CSF (Granulocyte Colony Stimulating Factor) (Clone 3316) recognizes an epitope on Human G-CSF. This monoclonal antibody was purified using multi-step affinity chromatography methods such as Protein A or G depending on the species and isotype.

Background:

Granulocyte colony-stimulating factor (G-CSF or GCSF) is a colony-stimulating factor hormone. It is a glycoprotein, growth factor or cytokine produced by a number of different tissues to stimulate the bone marrow to produce granulocytes and stem cells. G-CSF then stimulates the bone marrow to release them into the blood. It also stimulates the survival, proliferation, differentiation, and function of neutrophil precursors and mature neutrophils. G-CSF is produced by endothelium, macrophages, and a number of other immune cells. It stimulates the production of white blood cells. G-CSF is also used to increase the number of hematopoietic stem cells in the blood of the donor before collection by leukapheresis for use in hematopoietic stem cell transplantation.

Known Reactivity Species:

Human

Format:

Purified No Carrier Protein

Immunogen:

Purified Recombinant Human G-CSF (Accession # NP_757373)

Formulation

This monoclonal antibody has been 0.2 µm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 - 7.4 containing 5.0% w/v trehalose with no calcium, magnesium or preservatives present.

Endotoxin

<0.1 EU/µg as determined by the LAL method

Storage and Stability

The lyophilized antibody can be stored desiccated at -20°C to -70°C for up to twelve months. The reconstituted antibody can be stored for at least four weeks at 2-8°C. For long-term storage of the reconstituted antibody, aseptically aliquot into working volumes and store at -20°C to -70°C in a manual defrost freezer. **Avoid repeated freeze thaw cycles.** No detectable loss of activity was observed after six months.

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

ELISA Sandwich: This antibody is useful as the capture antibody in a sandwich ELISA. The suggested coating concentration is 2-8 µg/ml. A suitable detection antibody is PN:G115 at a concentration of approximately 0.1-0.4 µg/ml. A suggested standard for this assay is PN:G123.

Other Applications Reported in Literature:

Neutralization: This antibody is useful for neutralization of Human G-CSF bioactivity. The antibody dose required to neutralize 50% (ND₅₀) of the biological activity of Human G-CSF (at 0.125 ng/ml) is 0.01 - 0.03 µg/ml.

Country of Origin

USA

References

1. Tzetzio, S. L., Kramer, E. D., Mohammadpour, H., Kim, M., Rosario, S. R., Yu, H., Dolan, M., Oturkar, C. C., Morreale, B., Bogner, P. N., Stablewski, A., Benavides, F., Brackett, C. M., Ebos, J. M., Das, G. M., Opyrchal, M., Nemeth, M. J., Evans, S. S., & Abrams, S. I. (2024). Downregulation of IRF8 in alveolar macrophages by G-CSF promotes metastatic tumor progression. *iScience*, 109187. <https://doi.org/10.1016/j.isci.2024.109187>