

# Biotin Conjugated Anti-Human GM-CSF Antibody [PS01-38]

## HA722648B



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| <b>Product Type:</b>       | Recombinant Rabbit monoclonal IgG, primary antibodies |
| <b>Species reactivity:</b> | Human   |
| <b>Applications:</b>       | ELISA(Det)  |
| <b>Molecular Wt:</b>       | Predicted band size: 16 kDa                           |
| <b>Clone number:</b>       | PS01-38   |

**Description:** Granulocyte-macrophage colony-stimulating factor (GM-CSF), also known as colony-stimulating factor 2 (CSF2), is a monomeric glycoprotein secreted by macrophages, T cells, mast cells, natural killer cells, endothelial cells and fibroblasts that functions as a cytokine. Unlike granulocyte colony-stimulating factor, which specifically promotes neutrophil proliferation and maturation, GM-CSF affects more cell types, especially macrophages and eosinophils. GM-CSF is a monomeric glycoprotein that functions as a cytokine—it is a white blood cell growth factor. GM-CSF also has some effects on mature cells of the immune system. These include, for example, enhancing neutrophil migration and causing an alteration of the receptors expressed on the cells surface. GM-CSF signals via signal transducer and activator of transcription, STAT5. In macrophages, it has also been shown to signal via STAT3. The cytokine activates macrophages to inhibit fungal survival. It induces deprivation in intracellular free zinc and increases production of reactive oxygen species that culminate in fungal zinc starvation and toxicity. Thus, GM-CSF facilitates development of the immune system and promotes defense against infections. GM-CSF also plays a role in embryonic development by functioning as an embryokine produced by reproductive tract. GM-CSF is found in high levels in joints with rheumatoid arthritis and blocking GM-CSF as a biological target may reduce the inflammation or damage. In critically ill patients GM-CSF has been trialled as a therapy for the immunosuppression of critical illness, and has shown promise restoring monocyte and neutrophil function, although the impact on patient outcomes is currently unclear and awaits larger studies.

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| <b>Conjugate:</b>             | Biotin-conjugated  |
| <b>Immunogen:</b>             | Recombinant full length protein.   |
| <b>Positive control:</b>      | Recombinant human GM-CSF protein (HA210712).   |
| <b>Subcellular location:</b>  | Secreted.  |
| <b>Database links:</b>        | SwissProt: P04141 Human  |
| <b>Recommended Dilutions:</b> |  |
| <b>ELISA(Det)</b>             | Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PS01-52] to GM-CSF (Capture) (HA721288). |
| <b>Storage Buffer:</b>        | PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% ProClin300.   |
| <b>Storage Instruction:</b>   | Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.   |
| <b>Purity:</b>                | Protein A affinity purified.   |

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

No Images

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Francisco-Cruz A, Aguilar-Santelises M, Ramos-Espinosa O, Mata-Espinosa D, Marquina-Castillo B, Barrios-Payan J, Hernandez-Pando R (January 2014). "Granulocyte-macrophage colony-stimulating factor: not just another haematopoietic growth factor". Medical Oncology. 31 (1): 774.
2. Deiß A, Brecht I, Haarmann A, Buttmann M (March 2013). "Treating multiple sclerosis with monoclonal antibodies: a 2013 update". Expert Review of Neurotherapeutics. 13 (3): 313–35.

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