

Human GM-CSF Protein; His Tag

Product Information

Product Name Human GM-CSF Protein; His Tag

Storage temp Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt.

Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Catalog# / Size GM-88383RP-100 / 100 μg

GM-88383RP-1000 / 1 mg

Protein Information

Alternative Names GM-CSF, CSF2, MGC131935

Source Human GM-CSF Protein; His Tag (GM-88383RP) is expressed from human 293 cells (HEK-293). It contains Ala 18 - Glu 144 (Accession # P04141). This protein carries a His tag at the N-terminus.

Purity > 95% as determined by SDS-PAGE

Endotoxin < 1 EU/ μg , determined by LAL gel clotting assay

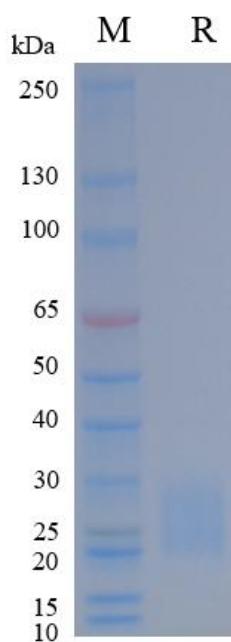
Predicted Mol Mass 15.3 KDa

Formulation Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.

Description GM-CSF (CSF2, MGC131935) is a secreted cytokine produced by various cells, including T cells, macrophages, endothelial cells, and fibroblasts. It binds to the GM-CSF receptor complex (CSF2RA + CSF2RB) to stimulate proliferation, differentiation, and activation of myeloid cells (granulocytes, macrophages). It also promotes dendritic cell maturation, enhances antigen presentation, and modulates inflammation; clinically, GM-CSF boosts hematopoietic recovery and aids studies of myeloid biology and immune regulation.

GM-CSF signaling mainly activates the JAK-STAT pathway (JAK2, sometimes JAK1; STAT5). It also engages MAPK/ERK and PI3K-AKT pathways, promoting survival, proliferation, and cytokine production. Crosstalk with other cytokine receptors shapes response magnitude/duration, affecting innate and adaptive immunity. Dysregulated GM-CSF signaling is linked to inflammatory diseases, myeloid malignancies, and autoimmunity, making GM-CSF a therapeutic target.

SDS-PAGE

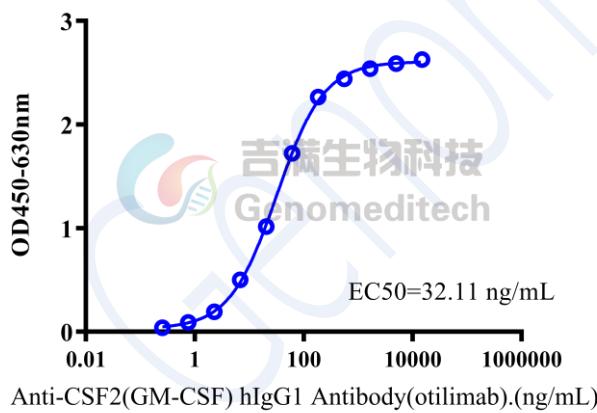


On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

Bioactivity-ELISA

0.2 μ g Human GM-CSF Protein; His Tag of per well



Human GM-CSF Protein; His Tag (Catalog # GM-88383RP) was immobilized at 2 μ g/ml (100 μ L/well). Increasing concentrations of Anti-CSF2(GM-CSF) hIgG1 Antibody(otilimab) (Catalog # GM-28956AB) were added.