# Recombinant Human GM-CSF (CSF2)

**Cat No:HR2R1462**

For research use only

## Overview

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|---|---|
| Quantity | 20 ?g |
| Gene Symbol | CSF2 |
| Gene ID | 1437 |
| Accession | P04141 |
| Alternative Name | GM-CSF, Granulocyte-macrophage colony-stimulating factor, CSF-2, Pluripoietin-alpha, Recombinant Human Granulocyte Macrophage Colony Stimulating Factor (CSF2) |
| Species | Human |
| Source | E. coli |
| Description | GM-CSF is a hematopoietic growth factor that is produced by endothelial cells, monocytes, fibroblasts and T-lymphocytes following their activation by antigens or mitogens. GM-CSF stimulates the development of macrophages and neutrophils and plays a role in the proliferation and development of early erythroid megakaryocytic and eosinophilic progenitor cells. Approximately 90% of the secreted colony stimulating activities are due to GM-CSF. While non-glycosylated and glycosylated GM-CSF show similar activities in vitro, fully glycosylated GM-CSF is biologically more active in vivo compared to its non-glycosylated counterpart. Human and murine GM-CSF are species-specific and therefore, exhibit no cross-reactivity. Recombinant Human GM-CSF is a non-glycosylated, monomeric protein that contains intra-chain disulfide bonds. |
| Functions | The ED50 as determined by the dose-dependent stimulation of the proliferation of human TF-1 cells was found to be ? 0.5 ng/mL |
| Formulation | Lyophilized from a 0.2 ?m filtered solution in Tris and NaCl |
| Solubility | A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers. |
| Appearance | Lyophilized Powder |
| Molecular Weight | 15 |
| Purity | >95% as determined by SDS-PAGE |
| Concentration | <1.0 EU/?g of recombinant protein as determined by the LAL method |
| Shipping Condition | Ambient Temperature |
| Storage Condition | The lyophilized protein is stable for at least one year from date of receipt at -70?C. Upon reconstitution, this cytokine can be stored in working aliquots at 2? - 8?C for one month, or at -20?C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles. |