rHu GM-CSF

recombinant Human Granulocyte Macrophage Colony Stimulating Factor

Product code A8341

Description:
Granulocyte Macrophage Colony Stimulating Factor is produced in response to a number of inflammatory mediators by mesenchymal cells present in the hemopoietic environment and at peripheral sites of inflammation. Granulocyte Macrophage-CSF is able to stimulate the production of neutrophilic granulocytes, macrophages, and mixed granulocyte-macrophage colonies from bone marrow cells and can stimulate the formation of eosinophil colonies from fetal liver progenitor cells. GM-CSF can also stimulate some functional activities in mature granulocytes and macrophages. GM-CSF receptors shows significant homologies with other receptors for hematopoietic growth factors, including IL2-beta, IL-3, IL-6, IL-7, EPO and the Prolactin receptors. Recombinant Human Granulocyte Macrophage CSF produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 127 amino acids and having a molecular mass of 14477 Dalton.

Physical Appearance: sterile filtered white lyophilized (freeze-dried) powder.

Source: *E. coli*

Formulation: GM-CSF was lyophilized after extensive dialysis against 2 mM sodium phosphate buffer pH 7.4 ± 0.1.

Reconstitution: It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Stability: Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended to add a carrier protein (0.1 % HSA or BSA) for long term storage.

Purity: > 98 % as determined by RP-HPLC, reducing and non-reducing SDS-PAGE.

Protein Content: determined by UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.

Biological Activity: GM-CSF is fully biologically active when compared to standard. The ED\textsubscript{50} as determined by the dose-dependant stimulation of the proliferation of human TF-1 cells (human erythroleukemic indicator cell line) is less then 0.1 ng/ml, corresponding to a Specific Activity of 11.1 x 10\textsuperscript{6} IU/mg.

References

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