Recombinant Human G-CSF
Granulocyte Colony Stimulating Factor
Ultra Pure

Catalog No:      Size:
CRG302A        2 µg
CRG302B        10 µg
CRG302C       1.0 mg

Description: Recombinant Human G-CSF, produced in *E. Coli*, is a single, non-glycosylated, polypeptide chain containing 174 amino acids and having a molecular mass of 18671 Dalton. Recombinant Human G-CSF is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

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

Formulation: The protein was lyophilized after extensive dialysis against 2 mM sodium acetate buffer pH = 4.5.

Solubility: The lyophilized recombinant Human G-CSF is very soluble in water and most aqueous buffers below and above the isoelectric point (pi=5.59). **Note: Always centrifuge vial before opening.**

Stability: Lyophilized recombinant Human G-CSF, although stable at room temperature, should be stored desiccated below 0°C. Reconstituted recombinant Human G-CSF is best stored refrigerated at 4°C.

Purity: Greater than 99.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Anion-exchange FPLC.
(c) Analysis by reducing and non-reducing silver-stained SDS-PAGE.
Limit of acceptance: ≥98.0%. No more than 2% total impurities; no single impurity greater than 1%.

Amino Acid Composition: In total agreement with the expected amino acid composition of native human G-CSF.

Amino Acid Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Thr-Pro-Leu-Gly-Pro, conforming to the sequence of native human G-CSF. N-terminal methionine has been completely removed enzymatically.

Dimers and Aggregates: Less than 1% as determined by silver-stained SDS-PAGE gel.

Biological Activity: Recombinant Human G-CSF is fully biologically active when compared to standard. The ED₅₀, calculated by the dose-dependant proliferation of mouse NFS-60 indicator cells, (measured by ³H-thymidine uptake) is < 0.1 ng/ml, corresponding to a Specific Activity of 1 x 10⁷ IU/mg.

Endotoxin: Less than 0.1 ng/µg (IEU/µg) of recombinant Human G-CSF.

Protein Content: Protein quantitation was carried out by two independent methods:
1. UV spectroscopy at 280 nm using the absorbency value of 0.815 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).

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