

PRODUCT DESCRIPTION

Granulocyte-macrophage colony-stimulating factor (GM-CSF) is a potent species-specific stimulator of granulocyte-macrophage, eosinophil, megakaryocyte and erythroid progenitors. Human GM-CSF is a 14 kDa protein containing 127 amino acid residues.

SOURCE

A DNA sequence encoding the mature human GM-CSF protein (Ala 18 - Glu 144; Accession #CAA26822) was expressed in *E. coli*.

PURITY

Purity is greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is <1.0 EU per 1 µg cytokine, as determined by the LAL method.

ACTIVITY

The biological activity of recombinant human GM-CSF is measured in a cell proliferation assay using a factor-dependent cell line, TF-1.¹ The ED₅₀ for this effect is typically 6 - 30 pg/mL.

FORMULATION

Recombinant human GM-CSF is lyophilized from a 0.2 µm filtered solution in phosphate buffered saline (PBS) containing 50 µg bovine serum albumin per 1 µg cytokine.

RECONSTITUTION

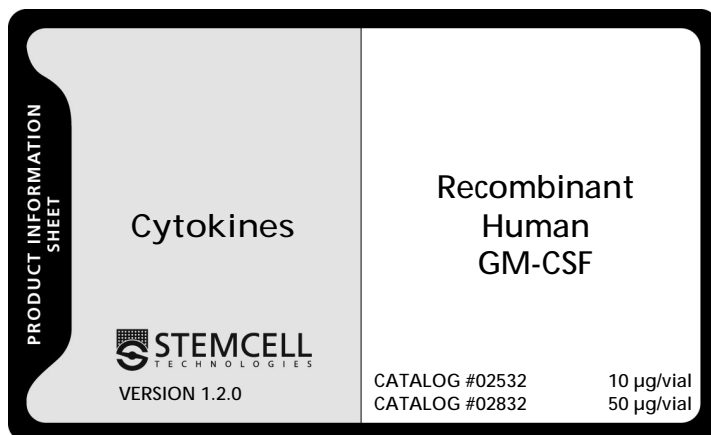
Reconstitute human GM-CSF at a concentration greater than 10 µg/mL with sterile PBS containing at least 0.1% human or bovine serum albumin.

STABILITY AND STORAGE

Lyophilized human GM-CSF is stable for up to twelve months from date of receipt at -20°C to -70°C.

Reconstituted human GM-CSF can be stored under sterile conditions at 2°C - 8°C for one month, or at -20°C to -70°C (in a manual defrost freezer) for three months without detectable loss of activity.

Avoid repeated freezing and thawing.



REFERENCES

1. Kitamura T, Tange T, Terasawa T, Chiba S, Kuwaki T, Miyagawa K, Piao YF, Miyazono K, Urabe A, Takaku F: Establishment and characterization of a unique human cell line that proliferates dependently on GM-CSF, IL-3, or erythropoietin. *J Cell Physiol* 140: 323-334, 1989